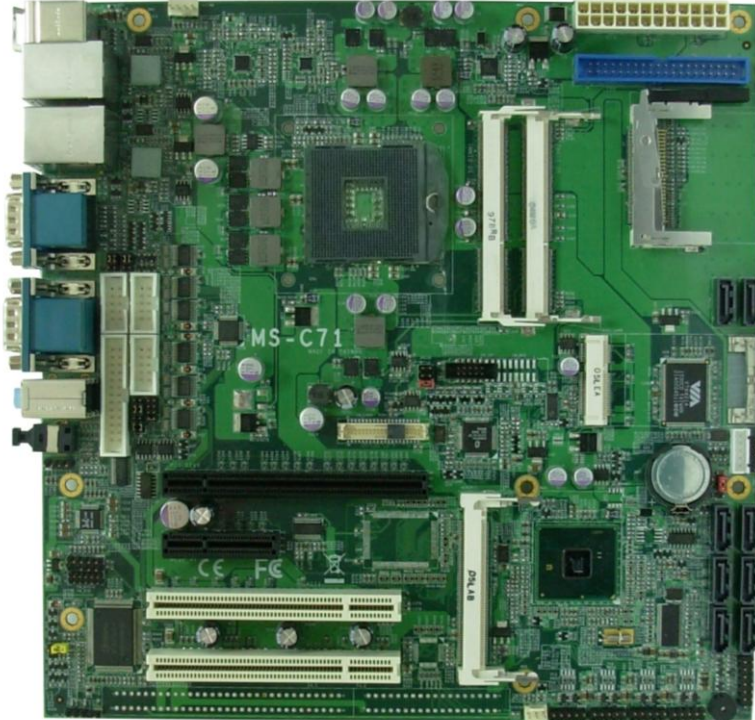


Product Test Report



Product Name	MS-C71
Product Version	A
Issued Date	8.4.2011
Report Edition	1.0
BIOS Version	1.0
Testing Engineer	Jamin

Index

Index	1
1. Function test.....	3
1.1 Hardware function.....	3
1.2 BIOS function	5
1.3 Driver	7
2. Compatibility test	11
2.1 CPU Test.....	11
2.2 Memory Test	12
2.3 VGA Graphic Quality Test.....	13
2.4 Audio	14
2.5 HDD Test	18
2.6 CD-ROM Test	21
2.7 USB Test.....	22
2.8 Serial Port Test	26
2.9 PS2 Keyboard 、 Mouse Test.....	29
2.10 LAN Test.....	32
2.11 Power Supply Test.....	35
2.12 Os Install	36
2.13 PCI Express Mini Card	37
2.14 Minipci Card.....	38
3. Environmental test	39
3.1 Temperature Test.....	39
3.2 Thermal measurements at various points on the board	42
4. Reliability Test	47
4.1 Power Consumption Test	47
5. Performance Test.....	54
5.1 3D MARK(2001 、 2003 、 2005)	54

5.2 3D MARK2006.....	57
5.3 PC MARK2002.....	60
5.4 PC MARK2004.....	63
5.5 PC MARK2005.....	66
5.6 AQUAMARK3	69
5.7 CINEBENCH	71
5.8 ZD CPUMARK	73
5.9 Storage Performance	75
5.10 Vibration Test.....	77

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	CPUFAN	Pass
6	SYSFAN	Pass
7	CN_CRT	Pass
8	CN_AUDIO	Pass
9	LAN1	Pass
10	LAN2	Pass
11	DDRIII	Pass
12	CF Card	Pass
13	SATA1/2/3/4/5/6/7/8	Pass
14	IDE	Pass
15	USB1/2/3/4/5/6/7/8/9/10/11/12	Pass
16	SPDIF	Pass
17	LVDS	Pass
18	INV	Pass
19	Audio	Pass
20	CN_DIO	Pass
21	CN_IR	Pass
22	CN_SMBUS	Pass

23	COM1/2/3/4/5/6	Pass
24	CD_IN	Pass
25	MINI_CRAD	Pass
26	MINIPCI	Pass
27	PCI	Pass
28	PCIEX16	Pass

Jumper

Item	Description	Result
1	JRTC	Pass
2	JAT	Pass
3	JVLCD	Pass
4	JP1	Pass
5	JP2	Pass
6	JCSEL1	Pass
7	JCSEL2	Pass

1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	Pass	Pass
2	Ctrl-Alt-Del – Soft-Reboot	Pass	Pass
3	Save & Exit Setup	Pass	Pass
4	Date & Time Setting	Pass	Pass
5	Halt On	Pass	Pass
6	Boot priority order	Pass	Pass
7	Keyboard Features NumLock	Pass	Pass
8	VGA Setting	Pass	Pass
9	Core Multi-Processing	Pass	Pass
10	Hyper Threading Technology	Pass	Pass
11	Intel (R) SpeedStep(tm)	Pass	Pass
12	Onboard Serial Port	Pass	Pass
13	PCH Usb Control Sub-Menu	Pass	Pass
14	Console Redirection	Pass	Pass
15	Wake-up on LAN(Onboard)	Pass	Pass
16	Smart Fan	Pass	Pass
17	Shutdown Temperature	Pass	Pass
18	CPU Warning Temperature	Pass	Pass
19	Serial port 2(IR)	Pass	Pass
20	Watch Dog Timer	Pass	Pass
21	Total Graphics Memory	Pass	Pass
22	Set Supervisor Password	Pass	Pass

23	Set User Password	Pass	Pass
24	HD AUDIO	Pass	Pass
25	ACPI Control Sub-Menu	Pass	Pass
26	AHCI (SATA Mode)	Pass	Pass
27	PWRON After PWR-Fail	Pass	Pass
28	Full screen Logo	Pass	Pass

1.3 Driver

CD dition : IPCI3-1.1

1. Windows XP SP3 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.2.0.1019
2	VGA Driver	Pass	6.14.10.5284
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	5.2.3790.540

2. Windows XP 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.2.0.1019
2	VGA Driver	Pass	6.14.10.5284
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	5.2.3790.540

3. Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver		
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	5.2.3790.540

4. Windows Server 2003 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver		
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	5.2.3790.540

5. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	15.17.11.2202
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	5.2.3790.540

6. Windows Vista 64 bit Driver Test

Item	Description	Result	version
1	Description	Pass	9.1.1.1019
2	Chipset Driver	Pass	15.17.11.64.2202
3	VGA Driver	Pass	6.0.1.6083
4	Audio Driver	Pass	11.4.7.0
5	LAN Driver	Pass	5.2.3790.540

7. Windows 7 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.2.0.1019
2	VGA Driver	Pass	15.17.11.2202
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	6.0.6000.6210

8. Windows 7 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	15.17.11.64.2202
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	6.0.6000.6210

9. Windows 2008 32 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.2.0.1019
2	VGA Driver		
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	6.0.6000.6210

10. Windows 2008 64 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver		
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0
5	RAID Driver	Pass	6.0.6000.6210

2. Compatibility test

2.1 CPU Test

Test environment:

OS :Windows XP professional SP3

Test program : PC MARK 2005

Spec	Clock Speed	Processor	DMI	Cache Size	Result
<u>SLBNL</u>	1.86 GHz	P4500	2.5 GT/s	2M	Pass
<u>SLBJJ</u>	1.73 GHz	i7-820QM	2.5 GT/s	8M	Pass
<u>SLBLC</u>	2.4 GHz	I5-520M	2.5 GT/s	3M	Pass
<u>SLBPK</u>	2.26 GHz	i3-350M	2.5 GT/s	3M	Pass
<u>SLBTQ</u>	2.66 GHz	i7-620M	2.5 GT/s	4M	Pass

2.2 Memory Test

Test environment:

OS :Windows XP professional SP3

Test program : PC MARK 2005

Manufacturer	Chip	DDRII frequency	Capacity Mbytes	Memory test Source
PQI	H5TQ2G 83AFR	DDRIII 1333	2GB	Pass
PQI	H5TQ2G 83AFR	DDRIII 1333	4GB	Pass
TLA	H5TQ2G 83BFR	DDRIII 1333	4G	Pass
TLA	H5TQ2G 83BFR	DDRIII 1066	4G	Pass
TLA	H5TQ2G 83BFR	DDRIII 1066	1G	Pass
Transcend	K4B1G0 846D	DDRIII 1066	2GB	Pass
Transcend	K4B1G0 3450	DDRIII 1066	1GB	Pass
Kingston	K4B2G0 846B	DDRIII 1066	4GB	Pass

2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP3

Driver version : 6.14.10.5284

Resolution	Color	Result	Remark
800 x 600	16 /32bit	Pass	Pass
1024 x 768	16 /32bit	Pass	Pass
1152 x 864	16 /32bit	Pass	Pass
1280 x 600	16 /32bit	Pass	Pass
1280 x 720	16 /32bit	Pass	Pass
1280 x 768	16 /32bit	Pass	Pass
1280 x 800	16 /32bit	Pass	Pass
1280 x 960	16 /32bit	Pass	Pass
1280 x 1024	16 /32bit	Pass	Pass
1360 x 768	16 /32bit	Pass	Pass
1366 x 768	16 /32bit	Pass	Pass
1400 x 1050	16 /32bit	Pass	Pass
1440 x 900	16 /32bit	Pass	Pass
1600 x 900	16 /32bit	Pass	Pass
1600 x 1200	16 /32bit	Pass	Pass
1600 x 1050	16 /32bit	Pass	Pass
1792 x 1344	16 /32bit	Pass	Pass
1920 x 1080	16 /32bit	Pass	Pass
1920 x 1200	16 /32bit	Pass	Pass

2.4 Audio

Test envirement:

OS Windows XP professional SP3

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows XP professional x64 Edition

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows SERVER 2003

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows SERVER 2003 64bit

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows Vista 32 bit

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows Vista 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 7 32 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 7 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 2008 32 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 2008 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

2.5 HDD Test

Test envirement:

OS Windows XP professional SP3

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
Western Digital WD1600AAJS	3.5 SATA	160GB	Pass	Pass	Pass
Western Digital WD2500AAJS		250GB	Pass	Pass	Pass
Western Digital WD5000AAKS		500GB	Pass	Pass	Pass
Western Digital WD2500BEVT	2.5 SATA	250GB	Pass	Pass	Pass
Western Digital WD3200BEKT		320GB	Pass	Pass	Pass

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
PQI	SATA DOM	4GB	Pass	Pass	Pass
PQI		8GB	Pass	Pass	Pass
ADATA (ISM02)		8GB	Pass	Pass	Pass
Memo Right	CF CARD	4GB	Pass	Pass	Pass
Memo Right(Wide-Temp)		8GB	Pass	Pass	Pass
Memo Right(Wide-Temp)		16GB	Pass	Pass	Pass
PQI		4GB	Pass	Pass	Pass

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
PQI		8GB	Pass	Pass	Pass
InnoDsik		8GB	Pass	Pass	Pass
InnoDsik(Wide-Temp)		8GB	Pass	Pass	Pass

2.6 CD-ROM Test

Test envirement:

OS Windows XP professional SP2

CD-ROM MODEL	INTERFACE	CD-ROM Detect	CD-ROM Data Transfer	PLAY DVD
PIONEER DVR-S19LBK	SATA	Pass	Pass	Pass
PIONEER DVR-212BK	SATA	Pass	Pass	Pass
LG GH20NS15	SATA	Pass	Pass	Pass
LITEON DVD SOSC-2485KX	USB	Pass	Pass	Pass
LITEON DVD ETAU108	USB	Pass	Pass	Pass
MATSHITA DVD EBC100	USB	Pass	Pass	Pass

2.7 USB Test

1. Windows XP SP3

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

2. Windows XP 64 bit

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

3. Windows Server 2003

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

4. Windows Server 2003 64bit

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.8 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-422	Pass	Pass
2	RS-485	Pass	Pass
3	TS	Pass	Pass

2. Windows XP SP3

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

3. Windows XP 64 bit

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

4. Windows Server 2003

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

5. Windows Server 2003 64 bit

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

6. Windows Vista 32 bit

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

7. Windows Vista 64 bit

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

8. Windows 7 32 bit

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

9. Windows 7 64 bit

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

10. Windows 2008 32 bit

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

11. Windows 2008 64 bit

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

2.9 PS2 Keyboard 、 Mouse Test

1. MS-DOS

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

2. Windows XP SP3

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

3. Windows XP 64 bit

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

4. Windows Server 2003

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.10 LAN Test

Data Transfer Test envirement:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP3

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

2. Windows XP 64 bit

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

3. Windows Server 2003

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

4. Windows Server 2003 64 bit

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.11 Power Supply Test

Item	TYPE	Description	Result	Remark
1	COOLER MASTER	RS-390-PMSR-A3	Pass	Pass
2	AcBel	ATX-350P-DNSS	Pass	Pass
3	CWT	CWT-300BS	Pass	Pass
4	CWT	CWT-300ATX12	Pass	Pass
5	Seventeam	ST-400EAG-05F	Pass	Pass
6	Snake	PT-300W	Pass	Pass
7	Snake	PK-350W	Pass	Pass

2.12 Os Install

Item	Description	Result	Remark
1	Windows Server 2003	Pass	Pass
2	Windows Server 2003 64 bit	Pass	Pass
3	Windows XP SP3	Pass	Pass
4	Windows XP 64 bit	Pass	Pass
5	Windows Vista 32 bit	Pass	Pass
6	Windows Vista 64 bit	Pass	Pass
7	Windows 7 32 bit	Pass	Pass
8	Windows 7 64 bit	Pass	Pass
9	Windows 2008 32 bit	Pass	Pass
10	Windows 2008 64 bit	Pass	Pass
11	Ubuntu 11.4	Pass	Pass
12	Fedora 14	Pass	Pass

2.13 PCI Express Mini Card

Motherboard	PCI Express mini card	Remark
MS-C71	MPX-954	PASS
MS-C71	MPX-954E	PASS
MS-C71	MPX-643	PASS
MS-C71	MPX-1040	PASS
MS-C71	MPX-574D	PASS
MS-C71	MPX-827	PASS
MS-C71	MPX-7767	PASS
MS-C71	MPX-3132	PASS
MS-C71	MPX-7202	PASS
MS-C71	MPX-SDVOD	PASS
MS-C71	MPX-TP4R	PASS

2.14 Minipci Card

Motherboard	PCI Express mini card	Remark
MS-C71	MP-954	PASS
MS-C71	MP-954GPS	PASS
MS-C71	MP-840	PASS
MS-C71	MP-323	PASS
MS-C71	MP-2010	PASS
MS-C71	MP-541	PASS
MS-C71	MP-541D2	PASS
MS-C71	MP-878D	PASS
MS-C71	MP-878D2	PASS
MS-C71	MP-2501	PASS
MS-C71	MP-60102	PASS
MS-C71	MP-6421	PASS
MS-C71	MP-6802	PASS
MS-C71	MP-2010	PASS

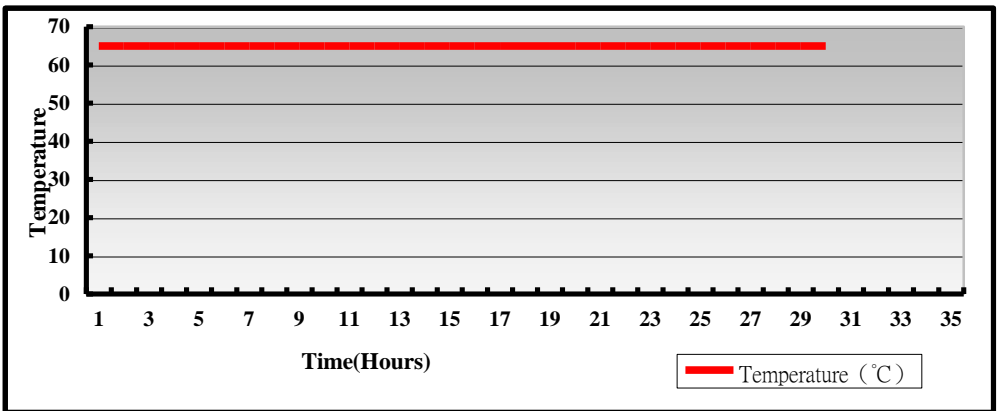
3. Environmental test

3.1 Temperature Test

Hardware Device list:

System Board	MS-C71
CPU	Intel(R) Core(TM) CPU i5- 520M 2.40GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 320GB (WD3200AAJS)
Operating OS	Windows XP SP3
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003 + Prime95

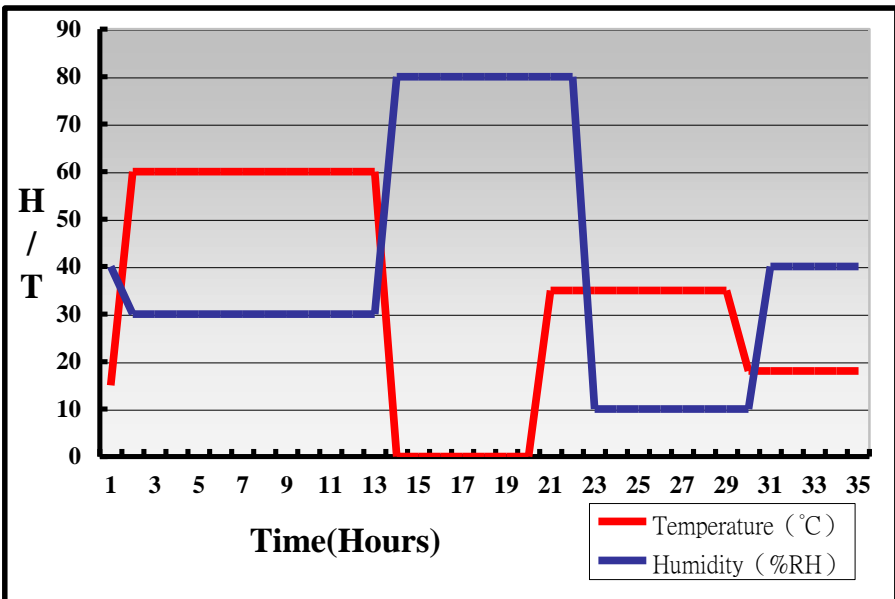
Test Result:



Hardware Device list:

System Board	MS-C71
CPU	Intel(R) Core(TM) CPU i5- 520M 2.40GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 320GB (WD3200AAJS)
Operating OS	Windows XP SP3
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003 + Prime95

Test Result:



Boot Up Test:

Hardware Device list:

System Board	MS-C71
CPU	Intel(R) Core(TM) CPU i5- 520M 2.40GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 320GB (WD3200AAJS)

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 :

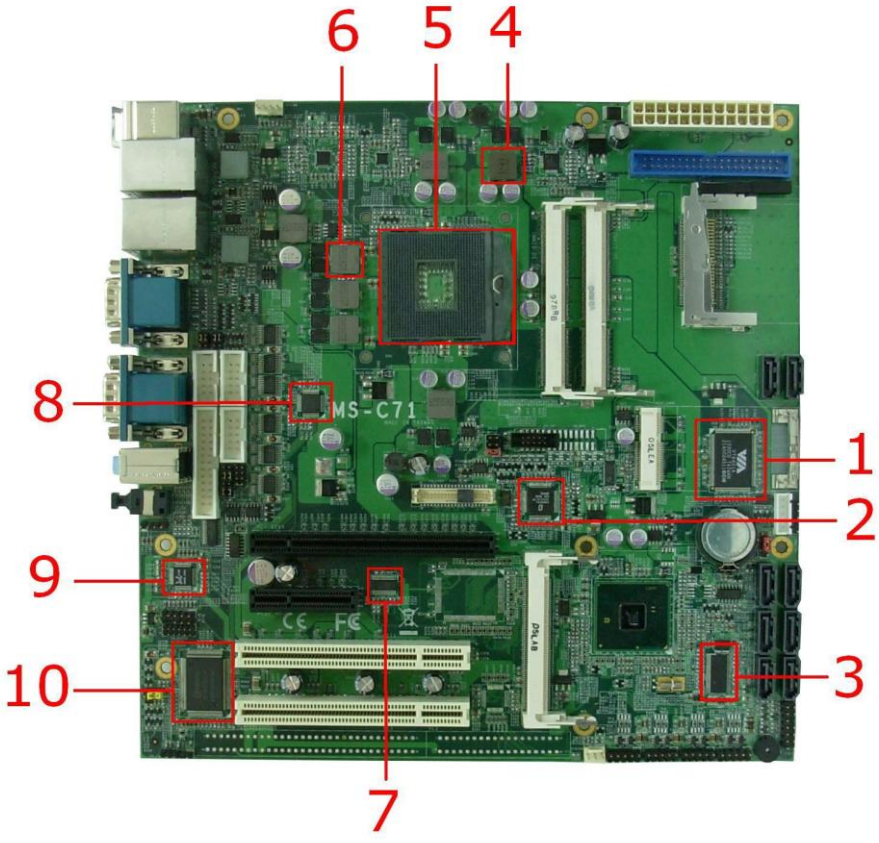
CPU	Intel(R) Core(TM) CPU i5- 520M 2.40GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 320GB (WD3200AAJS)
Power	SNAKE 350W (PK-350)
Operating System	Windows XP SP3
Test Program	3DMARK2003,Prime95

Test Result:

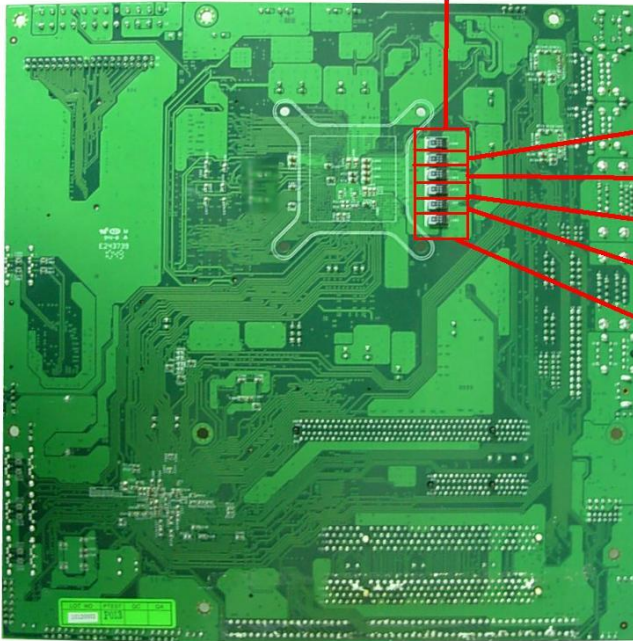
Environmental temperature	26.9°C
---------------------------	--------

Item	name	temperature
1	U26(ICHVT6421A)	50.3 °C
2	U30(ICH7318)	39.6 °C
3	U42(ICS9LP505)	47.4 °C
4	L2(LLC0.9UH)	34.6 °C
5	CPU	41.6 °C
6	L3(LLC0.36UH)	40.6 °C
7	U18(ICHF81216D)	34.3 °C
8	U36(IT8209R)	40.5 °C
9	U37(ICHALC888)	44.1 °C
10	LPCIO1(ICH83627DHG)	31.1 °C
11	C449(CSANYO2R5TPEPE33OM9)	41.7 °C
12	C451	42.9 °C
13	C463	43.6 °C

14	C470	44.2 °C
15	C480	43.7 °C
16	C485	43.5 °C
17	Heat Sink	35.4 °C
18	PCH	51.2 °C



11



12

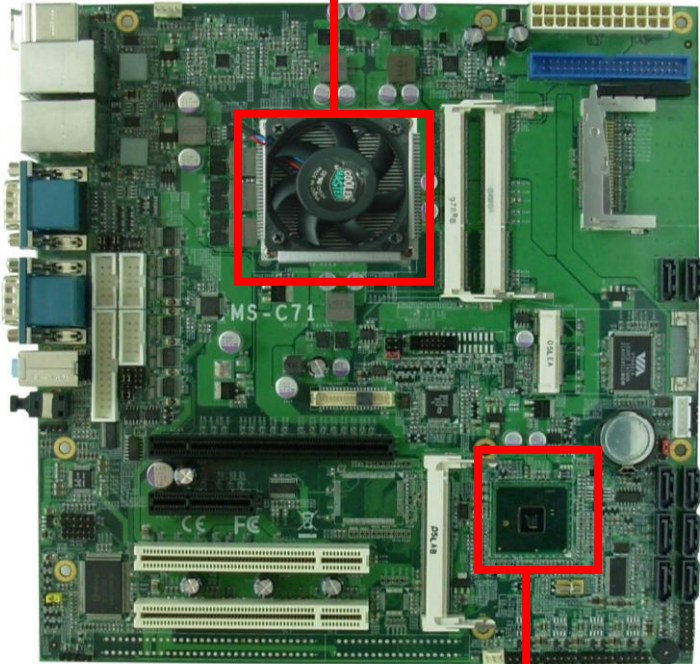
13

14

15

16

17



18

4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	MS-C71
CPU	Intel(R) Celeron (R) CPU P4500 1.87 GHz
Memory	TLA DDR3 1333 4G (H5TQ2G83BFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	0.82	9.84	1.02	12.24
5V	2.1	10.5	3.47	17.35
3.3V	3.3	10.89	3.5	11.55
5VSB	0.169	0.845	0.007	0.035

1.a.Test Environment:

The same as above but with LCD panel

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

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.82	33.84	3.25	39
5V	3.21	16.05	3.26	16.3
3.3V	3.39	11.187	3.39	11.187
5VSB	0.221	1.105	0.014	0.07

1.b.Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	XFX GEFORCE 8600GT 620M 256MB DDR3
----------------------	---

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.13	37.56	5.73	68.76
5V	1.8	9	1.85	9.25
3.3V	4.07	13.431	4.14	13.662
5VSB	0.245	1.225	0.013	0.065

2.Test Environment:

Motherboard	MS-C71
CPU	Intel(R) Core(TM) CPU i3 -350M 2.27GHz
Memory	TLA DDR3 1333 4G (H5TQ2G83BFR) Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)
Graphics card	Sea sonic (SS-430HB Active PFC F3) 430 W

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	0.97	11.64	1.78	21.36
5V	1.88	9.4	3.52	17.6
3.3V	3.24	10.692	3.71	12.243
5VSB	0.249	1.245	0.038	0.19

2.a.Test Environment:

The same as above but with LCD panel

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

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.95	35.4	3.79	45.48
5V	3.04	15.2	4.56	22.8
3.3V	3.3	10.89	3.68	12.144
5VSB	0.26	1.3	0.014	0.07

2.b.Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	XFX GEFORCE 8600GT 620M 256MB DDR3
---------------	------------------------------------

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.47	41.64	5.17	62.04
5V	1.76	8.8	1.88	9.4
3.3V	3.95	13.035	4.23	13.959
5VSB	0.174	0.87	0.019	0.095

3. Test Environment:

Motherboard	MS-C71
CPU	Intel(R) Core(TM) CPU i7- 820QM 1.73GHz
Memory	TLA DDR3 1333 4G (H5TQ2G83BFR) Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)
Graphics card	XFX GEFORCE 8600GT 620M 256MB DDR3

(A) Power Supply: Sea sonic (SS-430HB Active PFC F3) 430 W

Voltage	MS-DOS Boot up		Windows XP SP3 3DMARK 2003 + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.02	48.24	7.77	93.24
5V	2.31	11.55	2.52	12.6
3.3V	5.47	18.051	6.28	20.724
5VSB	0.177	0.885	0.024	0.12

5. Performance Test

5.1 3D MARK(2001、2003、2005)

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)	Pass	8291
3DMARK2003 Scores		Pass	3228
3DMARK2005 Scores		Pass	2176

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	8415
3DMARK2003 Scores		Pass	3229
3DMARK2005 Scores		Pass	2180

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)	Pass	9072
3DMARK2003 Scores		Pass	3241
3DMARK2005 Scores		Pass	2187

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	9232
3DMARK2003 Scores		Pass	3248
3DMARK2005 Scores		Pass	2197

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)	Pass	9196
3DMARK2003 Scores		Pass	3337
3DMARK2005 Scores		Pass	2303

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	9457
3DMARK2003 Scores		Pass	3426
3DMARK2005 Scores		Pass	2411

5.2 3D MARK2006

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)	Pass	1214
2	SM2.0 Source		Pass	430
3	HDR/SM3.0 Source		Pass	513
4	CPU Source		Pass	1610

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	1208
2	SM2.0 Source		Pass	431
3	HDR/SM3.0 Source		Pass	495
4	CPU Source		Pass	1608

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)	Pass	1317
2	SM2.0 Source		Pass	452
3	HDR/SM3.0 Source		Pass	537
4	CPU Source		Pass	2366

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	1451
2	SM2.0 Source		Pass	471
3	HDR/SM3.0 Source		Pass	554
4	CPU Source		Pass	2287

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	1371
2	SM2.0 Source		Pass	457
3	HDR/SM3.0 Source		Pass	514
4	CPU Source		Pass	2323

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)	Pass	1409
2	SM2.0 Source		Pass	442
3	HDR/SM3.0 Source		Pass	516
4	CPU Source		Pass	2410

5.3 PC MARK2002

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	6975
2	Memory test Source	Pass	19190
3	HDD test Source	Pass	1749

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	6842
2	Memory test Source	Pass	19541
3	HDD test Source	Pass	1835

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	7211
2	Memory test Source	Pass	30145
3	HDD test Source	Pass	1501

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	7627
2	Memory test Source	Pass	3412
3	HDD test Source	Pass	1652

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	8624
2	Memory test Source	Pass	35368
3	HDD test Source	Pass	1633

Test Environment
I Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	8971
2	Memory test Source	Pass	36152
3	HDD test Source	Pass	1742

5.4 PC MARK2004

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5920
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	4928
4	Graphic test Source	Pass	2016
5	HDD test Source	Pass	4051

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5923
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	4949
4	Graphic test Source	Pass	2124
5	HDD test Source	Pass	4028

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5956
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	5067
4	Graphic test Source	Pass	2133
5	HDD test Source	Pass	4177

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5958
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	4982
4	Graphic test Source	Pass	2094
5	HDD test Source	Pass	4232

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	6213
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	6132
4	Graphic test Source	Pass	2185
5	HDD test Source	Pass	4895

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP PS3

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	6225
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	6120
4	Graphic test Source	Pass	2140
5	HDD test Source	Pass	4912

5.5 PC MARK2005

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	3717
2	CPU test Source	Pass	4722
3	Memory test Source	Pass	4629
4	Graphic test Source	Pass	1971
5	HDD test Source	Pass	4668

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	3740
2	CPU test Source	Pass	4685
3	Memory test Source	Pass	4619
4	Graphic test Source	Pass	1938
5	HDD test Source	Pass	4610

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4557
2	CPU test Source	Pass	5688
3	Memory test Source	Pass	5354
4	Graphic test Source	Pass	2168
5	HDD test Source	Pass	6085

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4365
2	CPU test Source	Pass	5078
3	Memory test Source	Pass	5396
4	Graphic test Source	Pass	2123
5	HDD test Source	Pass	6028

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4875
2	CPU test Source	Pass	7110
3	Memory test Source	Pass	6104
4	Graphic test Source	Pass	2537
5	HDD test Source	Pass	6512

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4837
2	CPU test Source	Pass	6844
3	Memory test Source	Pass	6132
4	Graphic test Source	Pass	2311
5	HDD test Source	Pass	6313

5.6 AQUAMARK3

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	GFX	Pass	2112
2	CPU	Pass	7117
3	AquaMark3 TRISCORE	Pass	18408

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	GFX	Pass	2218
2	CPU	Pass	7576
3	AquaMark3 TRISCORE	Pass	19542

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	GFX	Pass	2301
2	CPU	Pass	8237
3	AquaMark3 TRISCORE	Pass	20228

5.7 CINEBENCH

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	GFX	Pass	0.94 fps
2	CPU	Pass	0.52 pts

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	Pass	1.17fps
2	CPU	Pass	0.98pts

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	GFX	Pass	1.26 fps
2	CPU	Pass	1.39 pts

5.8 ZD CPUMARK

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	Pass	260

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Kingston DDR3 1066 (K4B2G0846B) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	Pass	318

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz TLA DDR3 1333 (H5TQ2G83BFR) 4G Western Digital 1TB (WD10EARS)

Windows XP SP3

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	Pass	335

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 WD1600AAJS	SATA	160GB	96.3MB/sec	108MB/sec	16.3ms
Western Digital WD2500BEVT		250GB	75.1MB/sec	107.2MB/sec	15ms
Western Digital WD2500 AAJS		250GB	85.2MB/sec	118MB/sec	15.9ms
Western Digital WD5000AAKS		500GB	74.4MB/sec	112.5MB/sec	15.6ms
Western Digital WD10EARS		1TB	75.1MB/sec	90.7 MB/sec	15.8ms
ADATA (ISM02)	SATA DOM	8GB	40.9MB/sec	38.8 MB/sec	0.4ms

5.9.2 CD-ROM

Test environment:

OS Windows XP professional SP3

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Full READ	Burst Rate	CD
ATAPI LH-1P52N	IDE	30.05x	173ms	20 MB/s	52X CD-R
BenQ C652T	IDE	38.01x	177ms	20 MB/s	52X CD-R
LG GH20NS15	SATA	12.07x	178ms	49 MB/s	16X DVD-R
PIONEER DVR-S19LBK	SATA	12.10x	201ms	55 MB/s	16X DVD-R
LITEON DVD ETAU108	USB	6.06x	213ms	20 MB/s	16X CD-R

5.10 Vibration Test

Motherboard	MS-C71			
Test Equipment	VS-5060L			
Amplitude	Amplitude	Frequency	Time (1min/1Time)	Result
0.75mm	40°	5 → 55 → 5 Hz	10	Pass
1.00mm	55°	5 → 55 → 5 Hz	10	Pass
1.25mm	70°	5 → 55 → 5 Hz	10	Pass
1.5mm	90°	5 → 55 → 5 Hz	10	Pass
1.5mm	90°	5 → 55 → 5 Hz	120	Pass