

# Product Test Report



<b>Product Name</b>	<b>FS-A71</b>
<b>Product Version</b>	<b>A</b>
<b>Issued Date</b>	<b>3.Setpember.2008</b>
<b>Report Edition</b>	<b>1.0</b>
<b>BIOS Version</b>	<b>1.0</b>
<b>Testing Engineer</b>	<b>Gary</b>

# Index

Index .....	2
1. Function test .....	4
1.1 Hardware function .....	4
1.2 BIOS function .....	6
1.3 Driver .....	8
2. Compatibility test.....	9
2.1 CPU Test .....	9
2.2 Memory Test.....	10
2.3 VGA Graphic Quality Test .....	11
2.4 Audio .....	12
2.5 HDD Test .....	13
2.6 CD-ROM Test .....	14
2.7 USB Test .....	15
2.8 Serial Port Test .....	17
2.9 PS2 Keyboard \ Mouse Test .....	19
2.10 LAN Test.....	20
2.11 Power Supply Test.....	21
2.12 Os Install .....	22
2.13 Backplane (PICMG1.3) .....	22
3. Environmental test.....	23
3.1 Temperature Test.....	23
3.2Thermal measurements at various points on the board.....	24
4.Reliability Test .....	25
4.1 Power Consumption Test .....	25
5. Performance Test.....	31
5.1 Business Win Stone 2001 Version 1.0.1 .....	31
5.2 Business Win Stone 2002 .....	32
5.3 Content Creation Winstone 2001 .....	33
5.4 Content Creation Winstone 2004 .....	34

5.5 3D MARK(2001、2003、2005).....	35
5.6 3D MARK2006 .....	37
5.7 PC MARK2002.....	39
5.8 PC MARK2004.....	41
5.9 PC MARK2005.....	43
5.10 PATA Performance .....	45
5.11 SATA Performance .....	46
5.12 USB Performance .....	48

# 1. Function test

## 1.1 Hardware function

### Base Function Test

Item	Description	Result
1	Power Button	PASS
2	Reset	PASS
3	Power LED	PASS
4	HDD LED	PASS
5	SATA1	PASS
6	SATA2	PASS
7	SATA3	PASS
8	IDE	PASS
9	DDR2	PASS
10	USB1	PASS
11	USB2	PASS
12	USB3	PASS
13	COM1	PASS
14	COM2	PASS
15	VGA Port	PASS
16	PS2	PASS
17	AUDIO	PASS
18	CD_IN	PASS
19	DIO	PASS
20	CPUFAN	PASS
21	SYSFAN	PASS
22	LAN	PASS
23	LAN2	PASS
24	LVDS	PASS

25	IrDA	PASS
26	CF	PASS
27	LPT	PASS
28	Floppy	PASS

## Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4.	JVINV	PASS
5.	JVLCD	PASS
6.	CN_SDVO	PASS
7.	CN_DIO	PASS
8.	JCFSET	PASS

## 1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	PASS	
2	Ctrl-Alt-Del – Soft-Reboot	PASS	
3	Save & Exit Setup	PASS	
4	Date & Time Setting	PASS	
5	Quick Power On Self Test	PASS	
6	Boot Device Setting	PASS	
7	Boot Up Num Lock Status	PASS	
8	Halt On	PASS	
9	Onboard Serial Port	PASS	
10	USB Controller	PASS	
11	USB Keyboard Support	PASS	
12	Soft-Off by PWRBTN	PASS	
13	Power On Function	PASS	
14	ACPI Function	PASS	
15	Hot Key Password	PASS	
16	Wake-up by PCI card	PASS	
17	Watch Dog Timer Select	PASS	-
18	Init Display First	PASS	
19	PWRON After PWR-Fail	PASS	
20	Power On by Ring	PASS	
21	Set Supervisor Password	PASS	
22	Set User Password	PASS	
23	UART Mode Select	PASS	
24	RxD , Txd Active	PASS	
25	IR Transmission Delay	PASS	

<b>26</b>	<b>UR2 duplex Mode</b>	PASS	
<b>27</b>	<b>Use IR Pins</b>	PASS	

## 1.3 Driver

### CD Edition : IPCi2.1 – 1.1

#### 1. Windows XP SP2 Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	8.3.1.1009
2	VGA Driver	PASS	14.32.3
3	Audio Driver	PASS	5.10.00.5464
4	LAN Driver	PASS	10.2

#### 2. Windows Vista 64 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	8.3.1.1009
2	VGA Driver	PASS	15.11.0.1537
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	

#### 3. Windows Vista 32 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	8.3.1.1009
2	VGA Driver	PASS	15.11.0.1537
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	

#### 4. Windows Server 2003 Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	8.3.1.1009
3	Audio Driver	PASS	5.10.0.5464
4	LAN Driver	PASS	10.2



## 2. Compatibility test

### 2.1 CPU Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Spec	CPU Speed	Family	Processor	FSB	L2 Size	Result
<u>SLA3M</u>	2.40 GHz	Core 2 Duo	T7700	800 MHz	4 MB	PASS
<u>SLA4A</u>	1.80 GHz	Core 2 Duo	T7100	800 MHz	2 MB	PASS
<u>SLAYQ</u>	2.40 GHz	Core 2 Duo	T8300	800 MHz	3 MB	PASS
<u>SLA2G</u>	1.73 GHz	Celeron	530	533 MHz	1 MB	PASS

## 2.2 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	DDRII frequency	Capacity Mbytes	Memory test Source
Transcend	05270WC03	DDRII 533	2GB	PASS
Kingston	D1288TPFC GL25U	DDRII 800	2GB	PASS
Transcend	7TE17D9HN L	DDRII 533	2GB	PASS

## 2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2

Driver version : 6.14.10.4764

Resolution	Color	Result	
800*600	16 /32bit	PASS	
1024*768	16 /32bit	PASS	
1152*864	16 /32bit	PASS	
1280*600	16 /32bit	PASS	
1280*720	16 /32bit	PASS	
1280*768	16 /32bit	PASS	
1280*960	16 /32bit	PASS	
1280*1024	16 /32bit	PASS	
1400*1050	16 /32bit	PASS	
1600*900	16 /32bit	PASS	
1600*1200	16 /32bit	PASS	

## 2.4 Audio

### Test envirement:

OS Windows XP professional SP2

Driver version : 5.10.00.5366

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

OS Windows Vista 64 bit

Driver version : 6.0.1.5473

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

OS Windows Vista 32bit

Driver version : 6.0.1.5473

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

OS Windows Server 2003 Driver Test

Driver version : 5.10.0.5464

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

## 2.5 HDD Test

Test envirement:

OS Windows XP professional SP2

HDD MODEL	INTERFACE	Capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
Western Digital WD800JD-00LSA0	SATA	80GB	PASS	PASS	PASS
Seagate ST3250620AS	SATA	250GB	PASS	PASS	PASS
Western Digital WD3000JS-22PDB0	SATA	300GB	PASS	PASS	PASS
Seagate ST320413A	PATA	20GB	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
LG DVD GSA-H62L	SATA	PASS	PASS	PASS
PIONEER DVD PVR-212B	SATA	PASS	PASS	PASS
ASUS DVD DRW-1814BLT	SATA	PASS	PASS	PASS
Asus CB-5216A	PATA	PASS	PASS	PASS
LITEON SOSC-2485KX	USB	PASS	PASS	PASS

## 2.7 USB Test

### 1. Windows XP SP2

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

### 2. Windows Vista 64 bit

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

### 3. Windows Vista 32 bit

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

#### 4. Windows Server 2003 Driver Test

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



## 2.8 Serial Port Test

### 1. MS-DOS

Item	Description	Result	Remark
1	RS-232 Mouse Test	PASS	
2	RS-422 & RS-485	PASS	
3	PC Check	PASS	
4	TS	PASS	

### 2. Windows XP SP2

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

### 3. Windows Vista 62 bit

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

### 4. Windows Vista 32 bit

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

## 5. Windows Server 2003 Driver Test

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

## 2.9 PS2 Keyboard 、 Mouse Test

### 1. MS-DOS

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

### 2. Windows XP SP2

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

### 3. Windows Vista 64 bit

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

### 4. Windows Vista 32 bit

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

### 5.Windows Server 2003 Driver Test

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

## 2.10 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

### 1. Windows XP SP2

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

### 2. Windows Vista 32bit

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

### 3. Windows Vista 64bit

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

### 4. Windows Server 2003 Driver Test

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

## 2.11 Power Supply Test

### 1. MS-DOS

Item	Description	Verification	
		Result	Remark
1	AT Power On/Off	PASS	MAGITRONIC D-P350 200W
2	ATX Power On/Off	PASS	Seventeam ST-300WAP
3	ATX Power On/Off	PASS	Seasonic SS-330HB

### 2. Windows XP SP2

Item	Description	Verification	
		Result	Remark
1	AT Power On/Off	PASS	MAGITRONIC D-P350 200W
2	ATX Power On/Off	PASS	Seventeam ST-300WAP
3	ATX Power On/Off	PASS	Seasonic SS-330HB

### 3. Windows Vista 64 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	CWT CWT-ATX250W
2	ATX Power On/Off	PASS	Seventeam ST-300WAP
3	ATX Power On/Off	PASS	Seasonic SS-330HB

### 4. Windows Vista 32 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	CWT CWT-ATX250W
2	ATX Power On/Off	PASS	Seventeam ST-300WAP
3	ATX Power On/Off	PASS	Seasonic SS-330HB

## 5. Windows Server 2003 Driver Test

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	CWT CWT-ATX250W
2	ATX Power On/Off	PASS	Seventeam ST-300WAP
3	ATX Power On/Off	PASS	Seasonic SS-330HB

## 2.12 Os Install

	Description	Result	Remark
1	Windows Vista 64 bit	PASS	
2	Windows Vista 32 bit	PASS	
3	Windows XP SP2	PASS	
4	Windows Server 2003 Driver Test	PASS	
5	Fedora Code 7	PASS	

## 2.13 Backplane (PICMG1.3)

Item	BRAND	MODEL	Result	Remark
1	IEI	PE-6S2	PASS	
2	IEI	PE-10S	PASS	

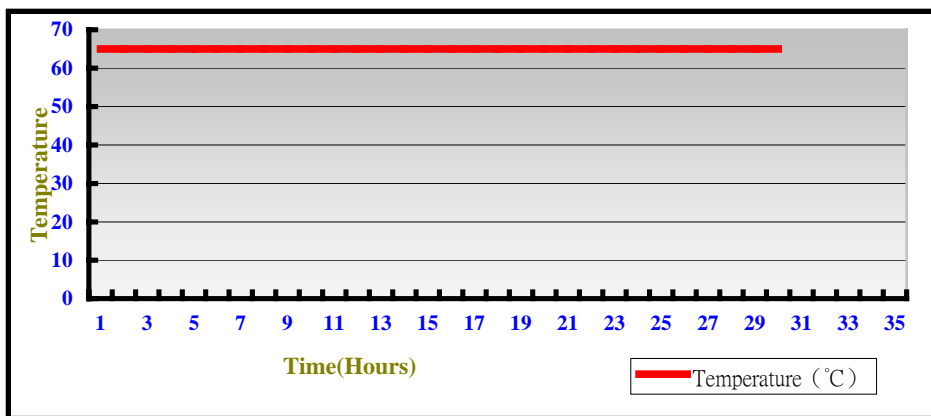
### 3. Environmental test

#### 3.1 Temperature Test

Hardware Device list:

System Board	FS-A71 + PE-10S-R20 Rev2.0
CPU	Intel Core 2 Duo T7700 2.4GHZ
Memory	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
HDD	<b>Western Digital WD3000JS-22PDB0 300GB</b>
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:



Boot Up Test:

Temperature	Result	Remark
70°C	PASS	50 Times

### 3.2 Thermal measurements at various points on the board

#### Test Environment:

<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	<b>Western Digital WD3000JS-22PDB0 300GB</b>
<b>Power</b>	<b>Seasonic SS-330HB</b>
<b>Operating System</b>	Windows XP
<b>Test Program</b>	3D WinMark2003

#### Test Result:

<b>CPU</b>	61.8
<b>GME965 (Northbridge)</b>	47.6°C
<b>ICH8M (Southbridge)</b>	45.9°C
U6 (ALC888)	56.2°C
U14 (ICS9LP505)	59.4°C
U19 (82573L)	44.9°C
L5	56.0°C



## 4. Reliability Test

### 4.1 Power Consumption Test

#### 1. Test Environment:

<b>CPU</b>	Intel Celeron 530 1.73GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seventeam ST-300WAP**

#### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	1.87	22.44	
5V	4.32	21.60	
5VSB	0.02	0.10	

#### 2. Test Environment:

<b>CPU</b>	Intel Core 2 Duo T8300 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seventeam ST-300WAP**

#### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	2.40	28.80	
5V	4.64	23.20	
5VSB	0.04	0.20	

### 3.Test Environment:

<b>CPU</b>	Intel Core 2 Duo T8300 2.4GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seventeam ST-300WAP**

#### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	2.34	28.08	
5V	4.62	23.10	
5VSB	0.04	0.20	

### 4.Test Environment:

<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seasonic SS-330HB**

#### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	3.08	36.96	
5V	4.79	23.95	
5VSB	0.01	0.05	

## 5. Test Environment:

<b>CPU</b>	Intel Core 2 Duo T8300 2.4GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	2.34	28.08	
5V	4.67	23.35	
5VSB	0.01	0.05	

## 6. Test Environment:

<b>CPU</b>	Intel Core 2 Duo T8300 2.4GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>17" PANEL</b>	<b>SAMSUNG LTM150XH-L01</b>
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	3.45	41.40	
5V	5.18	25.90	
5VSB	0.42	2.10	

## 7.Test Environment:

<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>17" PANEL</b>	<b>SAMSUNG LTM150XH-L01</b>
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
<b>12V</b>	5.08	25.40	
<b>5V</b>	4.47	22.35	
<b>5VSB</b>	0.03	0.15	

## 8.Test Environment:

<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>17" PANEL</b>	<b>SAMSUNG LTM150XH-L01</b>
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
<b>12V</b>	4.53	54.36	
<b>5V</b>	5.05	25.25	
<b>5VSB</b>	0.02	0.10	

## 9. Test Environment:

<b>Motherboard</b>	FS-A71 + PE-10S-R20 Rev2.0
<b>CPU</b>	Intel Core 2 Duo T8300 2.4GHZ
<b>Memory</b>	Transcend DDRII 533 (7TE17D9HNL) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB

**(A) Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	2.79	33.48	Boot Up
5V	4.06	20.30	Boot Up
5VSB	0.00	0.00	Boot Up

## 10. Test Environment:

<b>Motherboard</b>	FS-A71 + PE-10S-R20 Rev2.0
<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB

**Power Supply: Seasonic SS-330HB**

### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
12V	2.20	26.40	Boot Up
5V	3.36	16.80	Boot Up
5VSB	0.02	0.10	Boot Up

## 11. Test Environment:

<b>Motherboard</b>	FS-A71 + PE-10S-R20 Rev2.0
<b>CPU</b>	Intel Core 2 Duo 1.86GHZ
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>17" PANEL</b>	<b>SAMSUNG LTM150XH-L01</b>

### Power Supply: Seasonic SS-330HB Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
<b>12V</b>	4.38	52.56	Boot Up
<b>5V</b>	4.35	27.75	Boot Up
<b>5VSB</b>	0.42	2.10	Boot Up

## 12. Test Environment:

<b>Motherboard</b>	FS-A71 + PE-10S-R20 Rev2.0
<b>CPU</b>	Intel Core 2 Duo T7700 2.4GHZ
<b>Memory</b>	Kingston DDRII 533 (D1288TPFCGL25U) 2GB
<b>HDD</b>	Western Digital WD3000JS-22PDB0 300GB
<b>17" PANEL</b>	<b>SAMSUNG LTM150XH-L01</b>

### Power Supply: Seasonic SS-330HB

#### Test Result

<b>Voltage</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Remark</b>
<b>12V</b>	3.74	44.88	Boot Up
<b>5V</b>	3.58	19.25	Boot Up
<b>5VSB</b>	0.02	0.10	Boot Up

## 5. Performance Test

### 5.1 Business Win Stone 2001 Version 1.0.1

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<b>Business Win stone2001</b>	Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	81.0 88.3 85.9 88.9 90.8
<b>Business Win stone2001</b>	Intel Core 2 Duo T8300 2.40GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	103.2 118.1 120.7 120.0 113.3
<b>Business Win stone2001</b>	Intel Core 2 Duo T7700 2.40GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	101.3 111.3 110.7 113.5 112.4

## 5.2 Business Win Stone 2002

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<b>Business Win stone2002</b>	Intel Celeron 530 1.73GHZ	Pass	37.7
	Transcend DDRII 533		39.7
	(05270WC03) 2GB		39.7
	Western Digital		38.7
	WD3000JS-22PDB0 300GB		39.0
<b>Business Win stone2002</b>	Intel Core 2 Duo T8300 2.40GHZ	Pass	45.9
	Transcend DDRII 533		50.9
	(05270WC03) 2GB		49.4
	Western Digital		50.5
	WD3000JS-22PDB0 300GB		49.8
<b>Business Win stone2002</b>	Intel Core 2 Duo T7700 2.40GHZ	Pass	45.0
	Transcend DDRII 533		48.3
	(05270WC03) 2GB		43.5
	Western Digital		44.1
	WD3000JS-22PDB0 300GB		45.1



## 5.3 Content Creation Winstone 2001

Windows XP XP2

<b>WEIGHTED SUITE</b>	<b>Test Environment</b>	<b>Result</b>	<b>Remark</b>
<b>Content Creation Winstone 2001</b>	Intel Celeron 530 1.73GHZ	Pass	121.1
	Transcend DDRII 533		128.1
	(05270WC03) 2GB		128.5
	Western Digital		127.2
	WD3000JS-22PDB0 300GB		126.5
<b>Content Creation Winstone 2001</b>	Intel Core 2 Duo T8300 2.40GHZ	Pass	156.6
	Transcend DDRII 533		174.6
	(05270WC03) 2GB		168.6
	Western Digital		166.0
	WD3000JS-22PDB0 300GB		174.3
<b>Content Creation Winstone 2001</b>	Intel Core 2 Duo T7700 2.40GHZ	Pass	152.4
	Transcend DDRII 533		161.2
	(05270WC03) 2GB		162.9
	Western Digital		164.0
	WD3000JS-22PDB0 300GB		162.5

## 5.4 Content Creation Winstone 2004

Windows XP XP2

<b>WEIGHTED SUITE</b>	<b>Test Environment</b>	<b>Result</b>	<b>Remark</b>
<b>Content Creation Winstone 2004</b>	Intel Core 2 Duo T7700 2.4GHZ	Pass	42.6
	Transcend DDRII 533		43.1
	(05270WC03) 2GB		43.3
	Western Digital		42.1
	WD3000JS-22PDB0 300GB		42.8
<b>Content Creation Winstone 2004</b>	Intel Core 2 Duo T8300 2.4GHZ	Pass	42.9
	Transcend DDRII 533		43.1
	(05270WC03) 2GB		42.6
	Western Digital		42.5
	WD3000JS-22PDB0 300GB		43.0
<b>Content Creation Winstone 2004</b>	Intel Celeron 530 1.73GHZ	Pass	31.0
	Transcend DDRII 533		31.0
	(05270WC03) 2GB		31.0
	Western Digital		31.0
	WD3000JS-22PDB0 300GB		31.0

## 5.5 3D MARK(2001、2003、2005)

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	3243
3DMARK2003 Scores		Pass	1027
3DMARK2005 Scores		Pass	474

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo T7100 1.80GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	2752
3DMARK2003 Scores		Pass	1366
3DMARK2005 Scores		Pass	539

## Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo T7700 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	3730
3DMARK2003 Scores		Pass	1113
3DMARK2005 Scores		Pass	580

## Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo T8300 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	2828
3DMARK2003 Scores		Pass	1071
3DMARK2005 Scores		Pass	703

## 5.6 3D MARK2006

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	204
2	SM2.0 Source		Pass	70
3	HDR/SM3.0 Source		Pass	71
4	CPU Source		Pass	763

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo T7100 1.80GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	224
2	SM2.0 Source		Pass	96
3	HDR/SM3.0 Source		Pass	78
4	CPU Source		Pass	1523

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo T7700 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	229
2	SM2.0 Source		Pass	77
3	HDR/SM3.0 Source		Pass	80
4	CPU Source		Pass	2035

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo T8300 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB	Pass	275
2	SM2.0 Source		Pass	94
3	HDR/SM3.0 Source		Pass	94
4	CPU Source		Pass	2089

## 5.7 PC MARK2002

Test Environment
Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	6751
2	Memory test Source	Pass	8153
3	HDD test Source	Pass	1269

Test Environment
Intel Core 2 Duo T7100 1.80GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	7095
2	Memory test Source	Pass	13849
3	HDD test Source	Pass	1450

Test Environment
Intel Core 2 Duo T7700 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	9492
2	Memory test Source	Pass	29795
3	HDD test Source	Pass	1481

Test Environment
Intel Core 2 Duo T8300 2.4GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	9400
2	Memory test Source	Pass	27850
3	HDD test Source	Pass	1517



## 5.8 PC MARK2004

<b>Test Environment</b>
Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP PS2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	PCMark Source	Pass	3491
2	CPU test Source	Pass	3869
3	Memory test Source	Pass	3976
4	Graphic test Source	Pass	731
5	HDD test Source	Pass	4415

<b>Test Environment</b>
Intel Core 2 Duo T7100 1.8GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP PS2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	PCMark Source	Pass	5320
2	CPU test Source	Pass	6033
3	Memory test Source	Pass	4549
4	Graphic test Source	Pass	852
5	HDD test Source	Pass	3981

### Test Environment

Intel Core 2 Duo T7700 2.4GHZ  
Transcend DDRII 533 (05270WC03) 2GB  
Western Digital WD3000JS-22PDB0 300GB

### Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	N/A
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	7138
4	Graphic test Source	Pass	899
5	HDD test Source	Pass	N/A

### Test Environment

Intel Core 2 Duo T8300 2.4GHZ  
Transcend DDRII 533 (05270WC03) 2GB  
Western Digital WD3000JS-22PDB0 300GB

### Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	N/A
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	5459
4	Graphic test Source	Pass	766
5	HDD test Source	Pass	4395

## 5.9 PC MARK2005

<b>Test Environment</b>
Intel Celeron 530 1.73GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	2378
2	CPU test Source	Pass	3152
3	Memory test Source	Pass	3389
4	Graphic test Source	Pass	989
5	HDD test Source	Pass	4852

<b>Test Environment</b>
Intel Core 2 Duo T7100 1.80GHZ Transcend DDRII 533 (05270WC03) 2GB Western Digital WD3000JS-22PDB0 300GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	3295
2	CPU test Source	Pass	4617
3	Memory test Source	Pass	3680
4	Graphic test Source	Pass	1118
5	HDD test Source	Pass	4801

**Test Environment**

Intel Core 2 Duo T7700 2.4GHZ

Transcend DDRII 533 (05270WC03) 2GB

Western Digital WD3000JS-22PDB0 300GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	3511
2	CPU test Source	Pass	6109
3	Memory test Source	Pass	4421
4	Graphic test Source	Pass	1056
5	HDD test Source	Pass	4906

**Test Environment**

Intel Core 2 Duo T8300 2.4GHZ

Transcend DDRII 533 (05270WC03) 2GB

Western Digital WD3000JS-22PDB0 300GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	3904
2	CPU test Source	Pass	6102
3	Memory test Source	Pass	4320
4	Graphic test Source	Pass	1273
5	HDD test Source	Pass	4424

## 5.10 PATA Performance

### 5.10.1 PATA HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
Seagate ST320413A	PATA	20GB	22.3MB/sec c	26.5 MB/sec	19.0ms

### 5.10.2 PATA CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Fill READ	Burst Rate	CD
Asus CB-5216A	PATA	32.73 x	190ms	24MB/s	52 X CD-R

## 5.11 SATA Performance

### 5.11.1 SATA HDD

Test envirement:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
Seagate ST3250620 AS	SATA	250GB	60.4MB/sec c	107.2 MB/sec	14.0ms
Western Digital WD800JD- 00LSA0		80GB	47MB/sec	123.8 MB/sec	13.5ms
Western Digital WD3000JS- 22PDB0		300GB	52.9MB/sec c	134.3 MB/sec	13.7ms

## 5.11.2 SATA CD-ROM

Test envirement:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Fill READ	Burst Rate	CD
PIONEER DVD DVR-212BK	SATA	31.01 x	188ms	45MB/s	52 X CD-R
LG DVD GSA-H62L		35.92 x	180ms	37MB/s	52X CD-R
ASUS DVD DRW-1814BLT		27.4 x	175ms	44MB/s	52X CD-R

## 5.12 USB Performance

### 5.12.1 USB HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
WD WD5000H1Q-00	USB	500GB	32.1 MB/sec	27.6 MB/sec	14.9ms
Cooler Master (RX-3SB-S)+WD800 WD800JD-00LSA0		80GB	30.9 MB/sec	27.7 MB/sec	14.1ms

### 5.12.2 UBS CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Fill READ	Burst Rate	CD
LITEON DVD SOSC-2485KX	USB	16.15 x	184ms	22MB/s	52X CD-R
LITEON DVD SOSW-833XS		17.34 x	177ms	21MB/s	52X CD-R