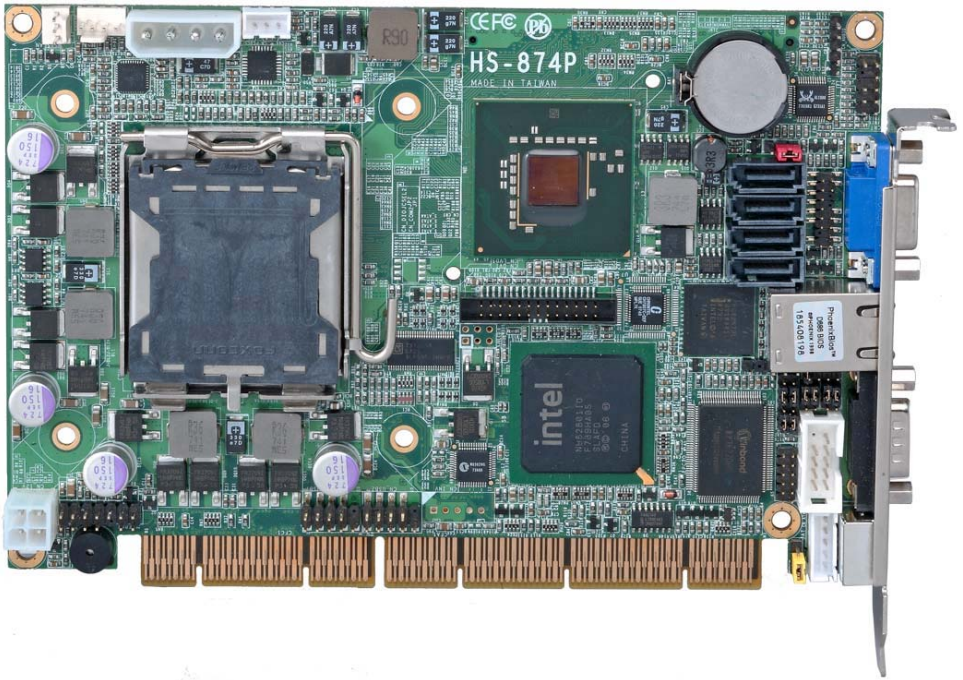


# Product Test Report



<b>Product Name</b>	<b>HS-874P</b>
<b>Product Version</b>	<b>A</b>
<b>Issued Date</b>	<b>16.August.2010</b>
<b>Report Edition</b>	<b>1.1</b>
<b>BIOS Version</b>	<b>1.1</b>
<b>Testing Engineer</b>	<b>KEN</b>
<b>Check Engineer</b>	<b>Michael</b>

**REVISION HISTORY**

<b>DATE</b>	<b>REVISION NO.</b>	<b>PAGE</b>	<b>DESCRIPTONS</b>
<b>16.06.2008</b>	<b>Ver. 1.0</b>	<b>55</b>	<b>New release</b>
<b>18.08.2010</b>	<b>Ver. 1.1</b>	<b>60</b>	<b>Increase Windows 32/64 bit</b>

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# 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	SATA4	PASS
9	SO-DIMM	PASS
10	USB1	PASS
11	USB2	PASS
12	COM1	PASS
13	COM2	PASS
14	VGA Port	PASS
15	PS2	PASS
16	AUDIO	PASS
17	CD_IN	PASS
18	DIO	PASS
19	CPUFAN	PASS
20	NBFAN	PASS
21	SYSFAN	PASS
22	LAN	PASS
23	DVI	PASS
24	LVDS	PASS

25	IrDA	PASS
26	CN_ATKB	PASS

## Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	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 : IPCi 2 - 1.1

### 1. Windows XP SP2 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	8.3.1.1009
2	VGA Driver	PASS	6.14.10.4906
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	7.14.10.1409
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	12.1

### 3. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	8.3.1.1009
2	VGA Driver	PASS	7.14.10.1409
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	12.1

### 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	12.1

### 5. Windows 7 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.1.1.1027
2	VGA Driver	PASS	8.15.10.1930
3	Audio Driver	PASS	6.0.1.6083
4	LAN Driver	PASS	9.13.41.0

### 6. Windows 7 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.1.1.1027
2	VGA Driver	PASS	8.15.10.1749
3	Audio Driver	PASS	6.0.1.6083
4	LAN Driver	PASS	9.13.41.0

## 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>SLA9V</u>	2.66 GHz	Core2Duo	E6750	1333 MHz	4 MB	PASS
<u>SLAPL</u>	3 GHz	Core2Duo	E8400	1333 MHz	6 MB	PASS
<u>SL9TA</u>	1.86 GHz	Core2Duo	E6300	1066 MHz	8 MB	PASS
<u>SLACR</u>	2.40 GHz	Core2Quad	Q6600	1066 MHz	8MB	PASS
<u>SL9UM</u>	2.40 GHz	Core2Quad	Q6600	1066 MHz	8 MB	PASS
<u>SLAWE</u>	2.50 GHz	Core2Quad	Q9300	1333 MHz	6 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	A3R1GE 3CFF	DDRII 800	2GB	PASS
PQI	7QE22D 9HNL	DDRII 667	2GB	PASS
ADATA	HY5PS1 G831C	DDRII 667	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	

**OS Windows 7 32 bit**

**Driver version :** 6.0.1.6083

<b>Item</b>	<b>Description</b>	<b>Result</b>	
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

**OS Windows 7 64bit**

**Driver version :**

<b>Item</b>	<b>Description</b>	<b>Result</b>	
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

## 2.5 HDD Test

Test envirimnt:

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 WD1600AAJS-22PSA0	SATA	160GB	PASS	PASS	PASS
Western Digital WD3000JS-22PDB0	SATA	300GB	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
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	

#### 5. Windows 7 64 bit

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

#### 6. Windows 7 32 bit

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 64 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	

### 6. Windows 7 64 bit

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

### 7. Windows 7 32 bit

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

### 3. Windows 7 64 bit

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

### 4. Windows 7 32 bit

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 envirement:

-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	

### 5. Windows 7 32bit

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

### 6. Windows 7 64bit

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	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

### 2. Windows XP SP2

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

### 3. Windows Vista 64 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

### 4. Windows Vista 32 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

## 5. Windows Server 2003 Driver Test

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

## 6. Windows 7 64 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

## 7. Windows 7 32 bit

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	PASS	Seventeam ST-300WAP 300W
2	ATX Power On/Off	PASS	HEC WINDMILL PRO 315W
3	ATX Power On/Off	PASS	Seasonic SS-430-HB 430W

## 2.13 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 6	PASS	
6	Windows 2000 SP4	PASS	
7	Windows 7 64 bit	PASS	
8	Windows 7 32 bit	PASS	

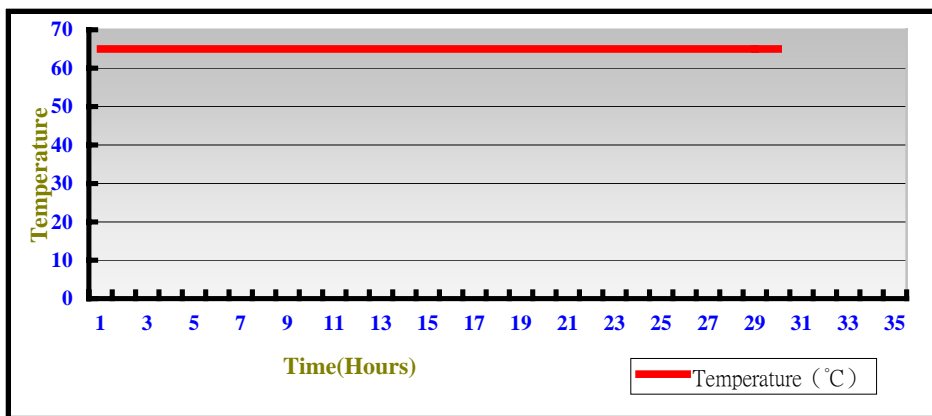
### 3. Environmental test

#### 3.1 Temperature Test

##### Hardware Device list:

System Board	HS-874P
CPU	Intel Core 2 Quad 2.4GHZ
Memory	Transcend DDRII 800 (A3R1GE3CFF) 2GB
HDD	Western Digital WD800JD-75MSA3 80GB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

##### Test Result:



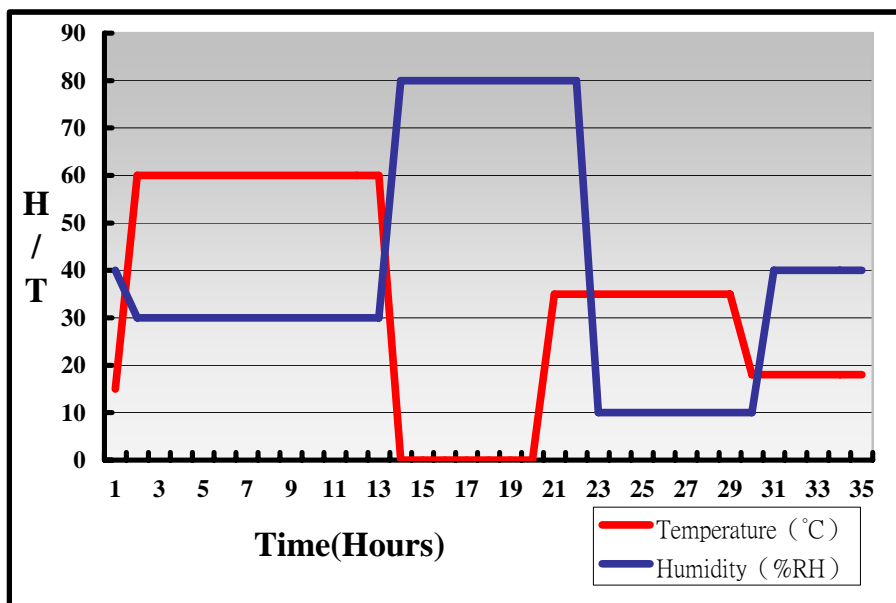
##### Boot Up Test:

Temperature	Result	Remark
-20°C	PASS	50 Times
70°C	PASS	50 Times

## Hardware Device list:

System Board	HS-874P
CPU	Intel Core 2 Quad 2.4GHZ
Memory	Transcend DDRII 800 (A3R1GE3CFF) 2GB
HDD	Western Digital WD800JD-75MSA3 80GB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

## Test Result:



## 3.2 Thermal measurements at various points on the board

### Test Environment :

<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>Power</b>	Seventeam ST-300WAP
<b>Operating System</b>	Windows XP
<b>Test Program</b>	3D WinMark2003

### Test Result:

<b>CPU</b>	31.9°C
<b>Q35 (Northbridge)</b>	48.7°C
<b>ICH9-DO (Southbridge)</b>	49.1°C
U14(ALC888)	64.9°C
LPCIO(83647DHG)	41.1°C
U5(9LP505)	53.9°C
U8(7307C)	57.8°C
U18(83628)	45.4°C
U6(83629)	65.6°C

## 4. Reliability Test

### 4.1 Power Consumption Test

#### 1. Test Environment:

<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	PQI DDRII 667 (QE22D9HNL) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<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	3.7	44.4	
5V	4.59	22.95	
5VSB	0.01	0.05	

#### 2. Test Environment:

<b>CPU</b>	Intel Core 2Quad 2.4GHZ(95W)
<b>Memory</b>	PQI DDRII 667 (QE22D9HNL) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<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	4.4	52.8	
5V	4.64	23.2	
5VSB	0.01	0.05	

### 3.Test Environment:

<b>CPU</b>	Intel Core 2Quad 2.4GHZ(95W)
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	<b>Western Digital WD800JD-75MSA3 80GB</b>
<b>Test OS</b>	<b>Windows XP</b>
<b>Test Program</b>	<b>3DMARK 2003</b>

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

#### 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>	4.86	24.3	
<b>5VSB</b>	0.01	0.05	

### 4.Test Environment:

<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	<b>Western Digital WD800JD-75MSA3 80GB</b>
<b>Test OS</b>	<b>Windows XP</b>
<b>Test Program</b>	<b>3DMARK 2003</b>

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

#### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	3.76	45.12	
<b>5V</b>	4.70	23.5	
<b>5VSB</b>	0.01	0.05	



## 5. Test Environment:

<b>CPU</b>	Intel Core 2Quad 2.4GHZ(105W)
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
12V	5.55	66.6	
5V	4.65	23.25	
5VSB	0	0	

## 6. Test Environment:

<b>CPU</b>	Intel Core 2Quad 2.4GHZ(105W)
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>17" PANEL</b>	AUO M170EG01
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
12V	7.43	89.16	
5V	5.89	29.45	
5VSB	0.01	0.05	

## 7.Test Environment:

<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>	AUO M170EG01
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	4.69	56.28	
<b>5V</b>	5.87	29.35	
<b>5VSB</b>	0.01	0.05	

## 8.Test Environment:

<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>17" PANEL</b>	AUO M170EG01
<b>Test OS</b>	Windows XP
<b>Test Program</b>	3DMARK 2003

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	5.45	65.4	
<b>5V</b>	5.81	29.05	
<b>5VSB</b>	0.01	0.05	

## 9. Test Environment:

<b>Motherboard</b>	<b>HS-874P X</b>
<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	PQI DDRII 667 (QE22D9HNL) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB

**(A) Power Supply:Seventeam ST-300WAP**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	2.97	35.64	Boot Up
<b>5V</b>	3.72	18.6	Boot Up
<b>5VSB</b>	0.01	0.05	Boot Up

## 10. Test Environment:

<b>Motherboard</b>	<b>HS-874P X</b>
<b>CPU</b>	Intel Core 2Quad 2.4GHZ(105W)
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB

**Power Supply:Enhance ENH-0630A (300W)**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	4.73	56.76	Boot Up
<b>5V</b>	3.81	19.05	Boot Up
<b>5VSB</b>	0	0	Boot Up

## 11. Test Environment:

<b>Motherboard</b>	<b>HS-874P X</b>
<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>AUO M170EG01</b>

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	4.01	48.12	Boot Up
<b>5V</b>	5.27	26.35	Boot Up
<b>5VSB</b>	0	0	Boot Up

## 12. Test Environment:

<b>Motherboard</b>	<b>HS-874P X</b>
<b>CPU</b>	Intel Core 2 Duo 2.66GHZ
<b>Memory</b>	Transcend DDRII 800 (A3R1GE3CFF) 2GB
<b>HDD</b>	Western Digital WD800JD-75MSA3 80GB
<b>17" PANEL</b>	<b>AUO M170EG01</b>

**Power Supply: ZECK ZKS-300WX**

### Test Result

<b>Voltage</b>	<b>Current ( A )</b>	<b>Power ( W )</b>	<b>Remark</b>
<b>12V</b>	5.03	60.36	Boot Up
<b>5V</b>	5.22	26.1	Boot Up
<b>5VSB</b>	0	0	Boot Up

## 5. Performance Test

### 5.1 Business Win Stone 2001

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<b>Business Win stone2001</b>	Intel Core 2 Duo 1.86GHZ	Pass	83.3
	PQI DDRII 667 (QE22D9HNL)		83.8
	2GB		82.9
	Western Digital		84.2
	WD800JD-75MSA3 80GB		84.1
<b>Business Win stone2001</b>	Intel Core 2 Duo 1.86GHZ	Pass	83
	Transcend DDRII 800		84.5
	(A3R1GE3CFF) 2GB		83.7
	Western Digital		84.8
	WD800JD-75MSA3 80GB		84.5
<b>Business Win stone2001</b>	Intel Core 2 Quad	Pass	96.3
	2.4GHZ(105W)		96.4
	Transcend DDRII 800		95.3
	(A3R1GE3CFF) 2GB		95.6
	Western Digital		95.7
WD800JD-75MSA3 80GB			

## 5.2 Business Win Stone 2002

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center"><b>Business</b> <b>Win stone2002</b></p>	<p align="center">Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p align="center">41.7 44.4 44 43.8 43</p>
<p align="center"><b>Business</b> <b>Win stone2002</b></p>	<p align="center">Intel Core 2 Quad 2.4GHZ(105W) PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p align="center">44.2 44 43.6 43 41.4</p>
<p align="center"><b>Business</b> <b>Win stone2002</b></p>	<p align="center">Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p align="center">40.8 40.8 40.6 40.3 40.1</p>

## 5.3 Business Win Stone 2004

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<b>Business Win stone2004</b>	Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	15.9 20.1 23 20.7 16.1
<b>Business Win stone2004</b>	Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	18.1 25 17.7 25.1 25.3

## 5.4 Content Creation Winstone 2001

Windows XP XP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center"><b>Content Creation Winstone 2001</b></p>	<p>Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p>156.1 156.5 158.5 155.6 155.7</p>
<p align="center"><b>Content Creation Winstone 2001</b></p>	<p>Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p>129.3 128.9 128.6 126.9 128</p>
<p align="center"><b>Content Creation Winstone 2001</b></p>	<p>Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">Pass</p>	<p>150.3 .149.6 148.2 148.8 148.3</p>



## 5.5 Content Creation Winstone 2003

Windows XP XP2

<b>WEIGHTED SUITE</b>	<b>Test Environment</b>	<b>Result</b>	<b>Remark</b>
<b>Content Creation Winstone 2003</b>	Intel Core 2 Quad	Pass	73
	2.4GHZ(105W)		74.3
	Transcend DDRII 800		74.4
	(A3R1GE3CFF) 2GB		75.3
	Western Digital WD800JD-75MSA3 80GB		76.1
<b>Content Creation Winstone 2003</b>	Intel Core 2 Duo 1.86GHZ	Pass	61.9
	Transcend DDRII 800		63.8
	(A3R1GE3CFF) 2GB		60.4
	Western Digital		45.8
	WD800JD-75MSA3 80GB		42.9
<b>Content Creation Winstone 2003</b>	Intel Core 2 Duo 3GHZ	Pass	83.9
	Transcend DDRII 800		85.3
	(A3R1GE3CFF) 2GB		83.9
	Western Digital		86.7
	WD800JD-75MSA3 80GB		84.3

## 5.6 Content Creation Winstone 2004

Windows XP XP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p><b>Content Creation</b> <b>Winstone</b> <b>2004</b></p>	<p>Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p>Pass</p>	<p>35.3 35.6 35.6 35.4 35.6</p>
<p><b>Content Creation</b> <b>Winstone</b> <b>2004</b></p>	<p>Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p>Pass</p>	<p>42.1 42.3 42.5 42.4 42.3</p>
<p><b>Content Creation</b> <b>Winstone</b> <b>2004</b></p>	<p>Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB</p>	<p>Pass</p>	<p>46.1 46.4 46.3 46 46.4</p>

## 5.7 3D MARK(2001、2003、2005)

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	8957
3DMARK2003 Scores		Pass	2217
3DMARK2005 Scores		Pass	576

### Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	8178
3DMARK2003 Scores		Pass	2054
3DMARK2005 Scores		Pass	704

## Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	6714
3DMARK2003 Scores		Pass	1817
3DMARK2005 Scores		Pass	594

## Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Core 2 Duo 3GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	9253
3DMARK2003 Scores		Pass	2317
3DMARK2005 Scores		Pass	792

## Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<b>3DMARK2001 Scores</b>	Intel Core 2 Quad 2.5GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	8407
<b>3DMARK2003 Scores</b>		Pass	2112
<b>3DMARK2005 Scores</b>		Pass	727

## 5.8 3D MARK2006

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo 2.66GHZ	Pass	235
2	SM2.0 Source	Transcend DDRII 800 (A3R1GE3CFF) 2GB	Pass	107
3	HDR/SM3.0 Source	Western Digital WD800JD-75MSA3 80GB	Pass	N/A
4	CPU Source		Pass	2208

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Quad	Pass	222
2	SM2.0 Source	2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB	Pass	101
3	HDR/SM3.0 Source	Western Digital WD800JD-75MSA3 80GB	Pass	N/A
4	CPU Source		Pass	3335

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo 1.86GHZ	Pass	179
2	SM2.0 Source	PQI DDRII 667 (QE22D9HNL) 2GB	Pass	82
3	HDR/SM3.0 Source	Western Digital WD800JD-75MSA3 80GB	Pass	N/A
4	CPU Source		Pass	1558

### Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Duo 3GHZ	Pass	223
2	SM2.0 Source	Transcend DDRII 800 (A3R1GE3CFF) 2GB	Pass	106
3	HDR/SM3.0 Source	Western Digital WD800JD-75MSA3 80GB	Pass	N/A
4	CPU Source		Pass	2651

. Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel Core 2 Quad 2.5GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB	Pass	223
2	SM2.0 Source		Pass	102
3	HDR/SM3.0 Source		Pass	N/A
4	CPU Source		Pass	3659



## 5.9 PC MARK2002

<b>Test Environment</b>
Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	CPU test Source	Pass	10494
2	Memory test Source	Pass	32932
3	HDD test Source	Pass	1374

<b>Test Environment</b>
Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	CPU test Source	Pass	9437
2	Memory test Source	Pass	29260
3	HDD test Source	Pass	1403

<b>Test Environment</b>
Intel Core 2 Duo 1.86GHZ PQI DDRII 667 (QE22D9HNL) 2GB Western Digital WD800JD-75MSA3 80GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	CPU test Source	Pass	7340
2	Memory test Source	Pass	14424
3	HDD test Source	Pass	1343

<b>Test Environment</b>
Intel Core 2 Duo 3GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	CPU test Source	Pass	11817
2	Memory test Source	Pass	36268
3	HDD test Source	Pass	1479

<b>Test Environment</b>
Intel Core 2 Quad 2.5GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	CPU test Source	Pass	9834
2	Memory test Source	Pass	29255
3	HDD test Source	Pass	1429

## 5.10 PC MARK2004

<b>Test Environment</b>
Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP PS2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	PCMark Source	Pass	N/A
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	8917
4	Graphic test Source	Pass	1455
5	HDD test Source	Pass	4482

<b>Test Environment</b>
Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP PS2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	PCMark Source	Pass	N/A
2	CPU test Source	Pass	N/A
3	Memory test Source	Pass	7678
4	Graphic test Source	Pass	1348
5	HDD test Source	Pass	4465

### Test Environment

Intel Core 2 Duo 1.86GHZ  
PQI DDRII 667 (QE22D9HNL) 2GB  
Western Digital WD800JD-75MSA3 80GB

### Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5515
2	CPU test Source	Pass	6233
3	Memory test Source	Pass	4965
4	Graphic test Source	Pass	1224
5	HDD test Source	Pass	4468

### Test Environment

Intel Core 2 Duo 3GHZ  
Transcend DDRII 800 (A3R1GE3CFF) 2GB  
Western Digital WD800JD-75MSA3 80GB

### 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	10117
4	Graphic test Source	Pass	1379
5	HDD test Source	Pass	5134

### Test Environment

Intel Core 2 Quad 2.5GHZ  
Transcend DDRII 800 (A3R1GE3CFF) 2GB  
Western Digital WD800JD-75MSA3 80GB

### 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	6792
4	Graphic test Source	Pass	1208
5	HDD test Source	Pass	5165

## 5.11 PC MARK2005

<b>Test Environment</b>
Intel Core 2 Duo 2.66GHZ Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	4553
2	CPU test Source	Pass	6750
3	Memory test Source	Pass	5629
4	Graphic test Source	Pass	1393
5	HDD test Source	Pass	4672

<b>Test Environment</b>
Intel Core 2 Quad 2.4GHZ(105W) Transcend DDRII 800 (A3R1GE3CFF) 2GB Western Digital WD800JD-75MSA3 80GB

### Windows XP SP2

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	4262
2	CPU test Source	Pass	7586
3	Memory test Source	Pass	4942
4	Graphic test Source	Pass	1296
5	HDD test Source	Pass	4636

**Test Environment**

Intel Core 2 Duo 1.86GHZ  
PQI DDRII 667 (QE22D9HNL) 2GB  
Western Digital WD800JD-75MSA3 80GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	3404
2	CPU test Source	Pass	4754
3	Memory test Source	Pass	4088
4	Graphic test Source	Pass	1105
5	HDD test Source	Pass	4670

**Test Environment**

Intel Core 2 Duo 3GHZ  
Transcend DDRII 800 (A3R1GE3CFF) 2GB  
Western Digital WD800JD-75MSA3 80GB

**Windows XP SP2**

<b>Item</b>	<b>WEIGHTED SUITE</b>	<b>Result</b>	<b>Remark</b>
1	System test Source	Pass	4491
2	CPU test Source	Pass	7636
3	Memory test Source	Pass	5881
4	Graphic test Source	Pass	953
5	HDD test Source	Pass	5543



### Test Environment

Intel Core 2 Quad 2.5GHZ  
Transcend DDRII 800 (A3R1GE3CFF) 2GB  
Western Digital WD800JD-75MSA3 80GB

### Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4493
2	CPU test Source	Pass	8011
3	Memory test Source	Pass	5116
4	Graphic test Source	Pass	918
5	HDD test Source	Pass	5574

## 5.12 SATA Performance

### 5.12.1 SATA HDD

Test envirement:

OS Windows XP professional SP2

Program (HDTune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
Seagate ST3250620 AS	SATA	250GB	59.7MB/sec	76.4 MB/sec	13.2ms
Western Digital WD800JD- 00LSA0		80GB	61.3MB/sec	103.1 MB/sec	13.0ms
Western Digital WD3000JS- 22PDB0		300GB	52.8MB/sec	135.1 MB/sec	13.2ms
Western Digital WD1600AA JS-22PSA		160GB	61.0MB/sec	124.9 MB/sec	12.9ms

## 5.12.2 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	30.76 x	187ms	44MB/s	52 X CD-R
LG DVD GSA-H62L		35.22 x	193ms	38MB/s	52X CD-R
ASUS DVD DRW-1814BLT		36.92 x	188ms	44MB/s	52X CD-R

## 5.13 USB Performance

### 5.13.1 USB HDD

Test environment:

OS Windows XP professional SP2

Program (HDTune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
HITACHI DK237A-32	USB	4GB	5.5MB/sec	16.8 MB/sec	20.6ms
HITACHI IC25N020A TMR04-0		20GB	22.9MB/sec	25.0 MB/sec	18.9ms

### 5.13.2 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	15.53 x	128ms	22MB/s	52X CD-R
LITEON DVD SOSW-833XS		15.49 x	141ms	21MB/s	52X CD-R