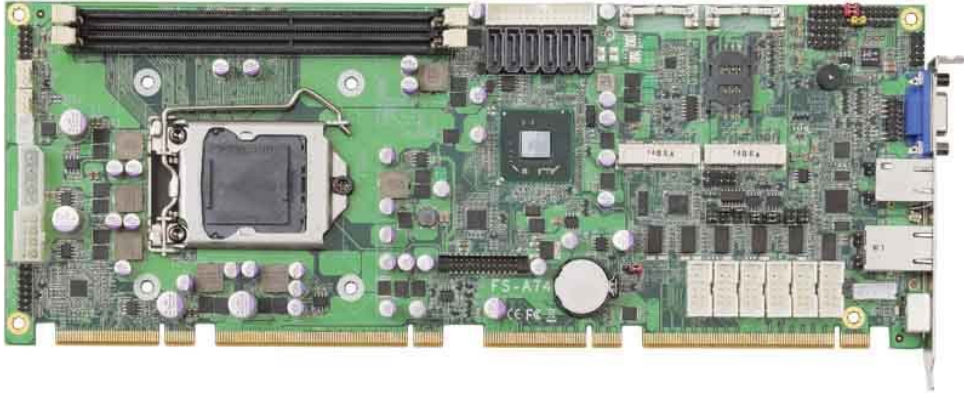


# Product Test Report



|                         |                   |
|-------------------------|-------------------|
| <b>Product Name</b>     | <b>FS-A74</b>     |
| <b>Product Version</b>  | <b>A</b>          |
| <b>Issued Date</b>      | <b>2016.07.20</b> |
| <b>Report Edition</b>   | <b>1.2</b>        |
| <b>BIOS Version</b>     | <b>2.0</b>        |
| <b>Testing Engineer</b> | <b>Jamin</b>      |

| <b>REVISION HISTORY</b> |                     |             |   |
|-------------------------|---------------------|-------------|---|
| <b>DATE</b>             | <b>REVISION NO.</b> | <b>PAGE</b> | <b>DESCRIPTONS</b>                        |
| <b>2011.09.28</b>       | <b>Ver. 1.0</b>     | <b>52</b>   | <b>Initial Release</b>                    |
| <b>2016.03.02</b>       | <b>Ver. 1.1</b>     | <b>52</b>   | <b>Add CPU Test (i7-3770&amp;i7-2600)</b> |
| <b>2016.07.20</b>       | <b>Ver. 1.2</b>     | <b>53</b>   | <b>Add Back Plane</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    | CPUFAN         | PASS   |
| 6    | SYSFAN         | PASS   |
| 7    | CN_DVI         | PASS   |
| 8    | CN_CRT         | PASS   |
| 10   | RJ45 1/2       | PASS   |
| 11   | CPU            | PASS   |
| 12   | DDRIII&B       | PASS   |
| 13   | SATA1/2        | PASS   |
| 14   | SATA3/4/5/6    | PASS   |
| 15   | USB1/2/3/4     | PASS   |
| 16   | CN_IR          | PASS   |
| 17   | COM1/2/3/4/5/6 | PASS   |
| 18   | Mini-Card1/2   | PASS   |
| 19   | CN_PS          | PASS   |
| 20   | CN_LPT         | PASS   |
| 21   | JSPD 1/2       | PASS   |
| 22   | JACT 1/2       | PASS   |

|    |                          |      |
|----|--------------------------|------|
| 24 | CN_ATKB                  | PASS |
| 25 | PCI (With Back Plan)     | PASS |
| 26 | PCIEX16 (With Back Plan) | PASS |
| 27 | PCIEX4 (With Back Plan)  | PASS |

**Jumper**

| Item | Description | Result |
|------|-------------|--------|
| 1    | JRTC        | PASS   |
| 2    | JAT         | PASS   |
| 3    | JP1         | PASS   |
| 4    | JP2         | PASS   |
| 5    | JP3         | PASS   |
| 6    | JP4         | PASS   |
| 7    | JCSEL1      | PASS   |
| 8    | JCSEL2      | PASS   |
| 9    | JVUSB       | 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    | Halt On                          | Pass   |        |
| 6    | System Information               | Pass   |        |
| 7    | Error Manager                    | Pass   |        |
| 8    | Select language                  | Pass   |        |
| 9    | High Resolution Graphics         | Pass   |        |
| 10   | Diagnostic Splash Screen         | Pass   |        |
| 11   | Diagnostic Summary Screen        | Pass   |        |
| 12   | Console Redirection              | Pass   |        |
| 13   | Legacy Boot                      | Pass   |        |
| 14   | Keyboard Features Num Lock       | Pass   |        |
| 15   | Console Redirection              | Pass   |        |
| 16   | Smart Fan                        | Pass   |        |
| 17   | Shutdown Temperature             | Pass   |        |
| 18   | CPU Warning Temperature          | Pass   |        |
| 19   | Watch Dog Timer                  | Pass   |        |
| 20   | Set Supervisor Password          | Pass   |        |
| 21   | Set User Password                | Pass   |        |
| 22   | Active Processor Cores           | Pass   |        |
| 23   | SATA Device                      | Pass   |        |
| 24   | DVMT Total GFX MEM               | Pass   |        |

| <b>Item</b> | <b>Description</b> | <b>Result</b> | <b>Remark</b> |
|-------------|--------------------|---------------|---------------|
| 25          | IGD-Boot Type      | Pass          |               |
| 26          | Power Control      | Pass          |               |
| 27          | Memory Frequency   | Pass          |               |
| 28          | Power Loss         | Pass          |               |

## 1.3 Driver

### CD dition : IPCI4-1.0

#### 1. Windows XP SP3 Driver Test

| Item | Description    | Result | version      |
|------|----------------|--------|--------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030   |
| 2    | VGA Driver     | Pass   | 6.14.10.5374 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449   |
| 4    | LAN Driver     | Pass   | 16.8.46.0    |

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

| Item | Description    | Result | version      |
|------|----------------|--------|--------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1019   |
| 2    | VGA Driver     | Pass   | 6.14.10.5374 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449   |
| 4    | LAN Driver     | Pass   |              |

#### 3. Windows Server 2003 Driver Test

| Item | Description    | Result | version    |
|------|----------------|--------|------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030 |
| 2    | VGA Driver     |        |            |
| 3    | Audio Driver   | Pass   | 6.0.1.6449 |
| 4    | LAN Driver     | Pass   | 16.8.46.0  |



#### 4. Windows Server 2003 64 bit Driver Test

| Item | Description    | Result | version    |
|------|----------------|--------|------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030 |
| 2    | VGA Driver     |        |            |
| 3    | Audio Driver   | Pass   | 6.0.1.6449 |
| 4    | LAN Driver     | Pass   |            |

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

| Item | Description    | Result | version       |
|------|----------------|--------|---------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030    |
| 2    | VGA Driver     | Pass   | 15.22.50.2509 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449    |
| 4    | LAN Driver     | Pass   | 16.8.46.0     |

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

| Item | Description    | Result | version       |
|------|----------------|--------|---------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030    |
| 2    | VGA Driver     | Pass   | 15.22.50.2509 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449    |
| 4    | LAN Driver     | Pass   |               |

#### 7. Windows 7 32 bit Driver Test

| Item | Description    | Result | version      |
|------|----------------|--------|--------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030   |
| 2    | VGA Driver     | Pass   | 8.15.10.2509 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449   |
| 4    | LAN Driver     | Pass   | 16.8.46.0    |

#### 8. Windows 7 64 bit Driver Test

| Item | Description    | Result | version      |
|------|----------------|--------|--------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030   |
| 2    | VGA Driver     | Pass   | 8.15.10.2509 |
| 3    | Audio Driver   | Pass   | 6.0.1.6449   |
| 4    | LAN Driver     | Pass   |              |

#### 9. Windows 2008 32 bit Driver Test

| Item | Description    | Result | Version    |
|------|----------------|--------|------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030 |
| 2    | VGA Driver     |        |            |
| 3    | Audio Driver   | Pass   | 6.0.1.6449 |
| 4    | LAN Driver     | Pass   | 16.8.46.0  |

#### 10. Windows 2008 64 bit Driver Test

| Item | Description    | Result | Version    |
|------|----------------|--------|------------|
| 1    | Chipset Driver | Pass   | 9.2.0.1030 |
| 2    | VGA Driver     |        |            |
| 3    | Audio Driver   | Pass   | 6.0.1.6449 |
| 4    | LAN Driver     | Pass   |            |

## 2. Compatibility test

### 2.1 CPU Test

Test environment:

OS: Windows XP professional SP3

| Spec                | Clock Speed     | Family      | Processor      | DMI           | Cache Size  | Result |
|---------------------|-----------------|-------------|----------------|---------------|-------------|--------|
| <b><u>SR02K</u></b> | 2.9 GHz         | Core        | i5-2310        | 5 GT/s        | 6 MB        | Pass   |
| <b><u>SR00P</u></b> | 3.40 GHz        | Xeon        | E3-1275        | 5 GT/s        | 8 MB        | Pass   |
| <b><u>SR05J</u></b> | 2.5 GHz         | Celeron     | G540           | 5 GT/s        | 2 MB        | Pass   |
| <b><u>SR0PK</u></b> | <b>3.40 GHz</b> | <b>Core</b> | <b>i7-3770</b> | <b>5 GT/s</b> | <b>8 MB</b> | PASS   |
| <b><u>SR00B</u></b> | <b>3.80 GHz</b> | <b>Core</b> | <b>i7-2600</b> | <b>5 GT/s</b> | <b>8 MB</b> | PASS   |

## 2.2 Memory Test

Test environment:

OS :Windows XP professional SP3

| Manufacturer | Chip             | DDRII frequency | Capacity Mbytes | Memory test Source |
|--------------|------------------|-----------------|-----------------|--------------------|
| Kingston     | KHX1600 C9D3P1K2 | DDRIII 1600     | 4GB             | Pass               |
| Kingston     | KVR1333 D3N9     | DDRIII 1333     | 4GB             | Pass               |

## 2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP3

Driver version : 6.14.10.5374

| Resolution  | Color     | Result | Remark |
|-------------|-----------|--------|--------|
| 800 x 600   | 16 /32bit | Pass   |        |
| 1024 x 768  | 16 /32bit | Pass   |        |
| 1152 x 864  | 16 /32bit | Pass   |        |
| 1280 x 600  | 16 /32bit | Pass   |        |
| 1280 x 720  | 16 /32bit | Pass   |        |
| 1280 x 768  | 16 /32bit | Pass   |        |
| 1280 x 800  | 16 /32bit | Pass   |        |
| 1280 x 960  | 16 /32bit | Pass   |        |
| 1280 x 1024 | 16 /32bit | Pass   |        |
| 1360 x 768  | 16 /32bit | Pass   |        |
| 1366 x 768  | 16 /32bit | Pass   |        |
| 1400 x 1050 | 16 /32bit | Pass   |        |
| 1440 x 900  | 16 /32bit | Pass   |        |
| 1600 x 900  | 16 /32bit | Pass   |        |
| 1600 x 1200 | 16 /32bit | Pass   |        |
| 1600 x 1050 | 16 /32bit | Pass   |        |
| 1792 x 1344 | 16 /32bit | Pass   |        |
| 1856 x 1392 | 16 /32bit | Pass   |        |
| 1920 x 1080 | 16 /32bit | Pass   |        |

## 2.4 DVI Graphic Quality Test

Test environment:

OS Windows XP professional SP3

Driver version : 6.14.10.5374

| Resolution  | Color     | Result | Remark |
|-------------|-----------|--------|--------|
| 800 x 600   | 16 /32bit | Pass   |        |
| 1024 x 768  | 16 /32bit | Pass   |        |
| 1152 x 864  | 16 /32bit | Pass   |        |
| 1280 x 600  | 16 /32bit | Pass   |        |
| 1280 x 720  | 16 /32bit | Pass   |        |
| 1280 x 768  | 16 /32bit | Pass   |        |
| 1280 x 800  | 16 /32bit | Pass   |        |
| 1280 x 960  | 16 /32bit | Pass   |        |
| 1280 x 1024 | 16 /32bit | Pass   |        |
| 1360 x 768  | 16 /32bit | Pass   |        |
| 1366 x 768  | 16 /32bit | Pass   |        |
| 1400 x 1050 | 16 /32bit | Pass   |        |
| 1440 x 900  | 16 /32bit | Pass   |        |
| 1600 x 900  | 16 /32bit | Pass   |        |
| 1600 x 1200 | 16 /32bit | Pass   |        |
| 1600 x 1050 | 16 /32bit | Pass   |        |
| 1792 x 1344 | 16 /32bit | Pass   |        |
| 1856 x 1392 | 16 /32bit | Pass   |        |
| 1920 x 1080 | 16 /32bit | 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<br>WD3200BEKT | 3.5 SATA  | 320GB    | Pass            | Pass              | Pass          |
| Western Digital<br>WD5000AAKS |           | 500GB    | Pass            | Pass              | Pass          |
| Western Digital<br>WD10EARS   |           | 1TB      | Pass            | Pass              | Pass          |
| Western Digital<br>WD10EALX   |           | 1TB      | Pass            | Pass              | Pass          |
| Western Digital<br>WD2500BEVT | 2.5 SATA  | 250GB    | Pass            | Pass              | Pass          |



## 2.6 CD-ROM Test

Test envirmnt:

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     |
| LITEON DVD ETAU108 | USB       | Pass          | Pass                 | Pass     |

## 2.7 USB Test

### 1. Windows XP SP3

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

### 2. Windows XP 64 bit

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

### 3. Windows Server 2003

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

#### 4. Windows Server 2003 64bit

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

#### 5. Windows Vista 32 bit

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

#### 6. Windows Vista 64 bit

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

### 7. Windows 7 32 bit

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

### 8. Windows 7 64 bit

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

### 9. Windows 2008 32 bit

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

## 10. Windows 2008 64 bit

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

## 2.8 Serial Port Test

### 1. MS-DOS

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

### 2. Windows XP SP3

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

### 3. Windows XP 64 bit

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

#### 4. Windows Server 2003

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

#### 5. Windows Server 2003 64 bit

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

#### 6. Windows Vista 32 bit

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

#### 7. Windows Vista 64 bit

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

**8. Windows 7 32 bit**

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

**9. Windows 7 64 bit**

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

**10. Windows 2008 32 bit**

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

**11. Windows 2008 64 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 SP3

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

### 3. Windows XP 64 bit

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

### 4. Windows Server 2003

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

**5. Windows Vista 32 bit**

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

**6. Windows Vista 64 bit**

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

**7. Windows 7 32 bit**

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

**8. Windows 7 64 bit**

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

**9. Windows 2008 32 bit**

| <b>Item</b> | <b>Description</b>          | <b>Result</b> | <b>Remark</b> |
|-------------|-----------------------------|---------------|---------------|
| <b>1</b>    | <b>Device Manager Check</b> | Pass          |               |
| <b>2</b>    | <b>Keyboard Typing Test</b> | Pass          |               |
| <b>3</b>    | <b>Mouse Detect Test</b>    | Pass          |               |

**10. Windows 2008 64 bit**

| <b>Item</b> | <b>Description</b>          | <b>Result</b> | <b>Remark</b> |
|-------------|-----------------------------|---------------|---------------|
| <b>1</b>    | <b>Device Manager Check</b> | Pass          |               |
| <b>2</b>    | <b>Keyboard Typing Test</b> | Pass          |               |
| <b>3</b>    | <b>Mouse Detect Test</b>    | Pass          |               |

## 2.10 Power Supply Test

| Item | TYPE      | Description                     | Result | Remark |
|------|-----------|---------------------------------|--------|--------|
| 1    | ATX Power | COOLER MASTER<br>RS-390-PMSR-A3 | Pass   |        |
| 2    | ATX Power | CWT<br>CWT-300BS                | Pass   |        |
| 3    | ATX Power | Snake<br>PT-300W                | Pass   |        |
| 4    | ATX Power | AcBel<br>PC7008                 | Pass   |        |
| 5    | ATX Power | AcBel<br>AP3PC50                | Pass   |        |

## 2.11 Os Install

| Item | Description                | Result | Remark |
|------|----------------------------|--------|--------|
| 1    | Windows Server 2003        | Pass   |        |
| 2    | Windows Server 2003 64 bit | Pass   |        |
| 3    | Windows XP SP3             | Pass   |        |
| 4    | Windows XP 64 bit          | Pass   |        |
| 5    | Windows Vista 32 bit       | Pass   |        |
| 6    | Windows Vista 64 bit       | Pass   |        |
| 7    | Windows 7 32 bit           | Pass   |        |
| 8    | Windows 7 64 bit           | Pass   |        |
| 9    | Windows 2008 32 bit        | Pass   |        |
| 10   | Windows 2008 64 bit        | Pass   |        |

## 2.12 Back plane

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

### 3 Environmental test

#### 3.1 Thermal measurements at various point on the board

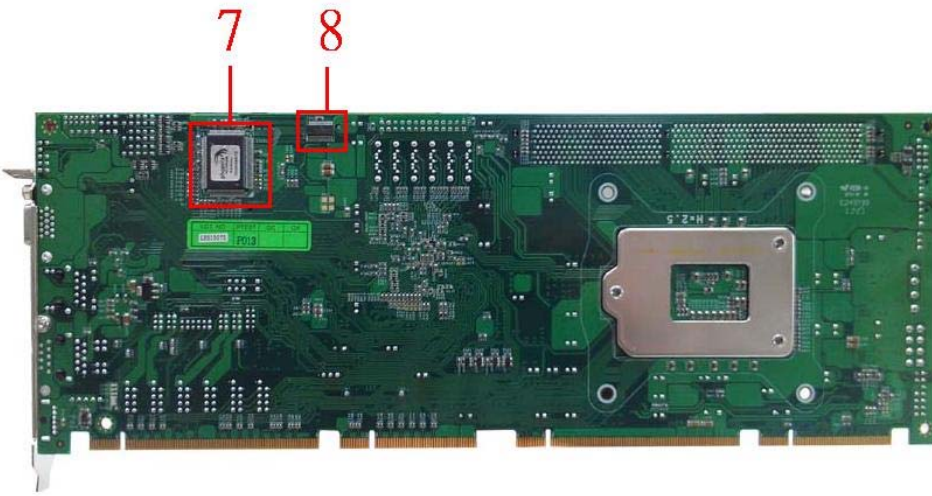
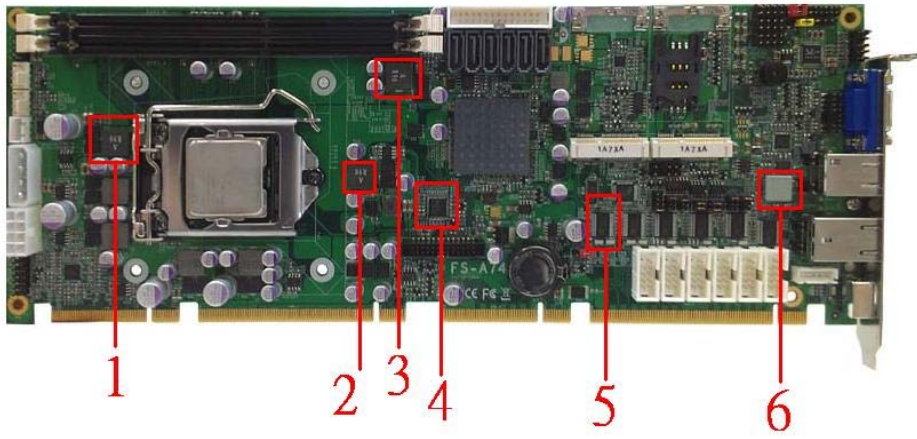
##### Test Environment :

|                  |  |
|------------------|--|
| CPU              | Intel(R) Core (TM) CPU i5-2310 2.90 GHz    |
| Memory           | Kingston DDR3 1600 4GB (KHX1600C9D3P1K2)X2 |
| HDD              | Western Digital 500GB (WD1010EARS)         |
| Power            | AcBel ATX-350P-DNSS 350W                   |
| Operating System | Windows XP SP3                             |
| Test Program     | 3DMARK2003,Prime95                         |

##### Test Result:

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

| Item | name               | temperature |
|------|--------------------|-------------|
| 1    | L5(LLC0.9UH)       | 29.2 °C     |
| 2    | L7(LLC0.9UH)       | 30.1 °C     |
| 3    | L4(LLC0.9UH)       | 28.9 °C     |
| 4    | U21(ICH7318)       | 29.5 °C     |
| 5    | U22(ICADM213ECA-T) | 30.5 °C     |
| 6    | U15(ICH82574L)     | 29.0 °C     |
| 7    | LPCIO(ICH83627DHG) | 30.7 °C     |
| 8    | U37(ICPACS1284)    | 30.3 °C     |



## 4 Reliability Test

### 4.1 Power Consumption Test

#### 1.Test Environment:

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel(R) Core(TM) i5-2310 CPU 2.90 GHz</b>        |
| <b>Memory</b>      | <b>Kingston DDR3 1600 4G<br/>(KHX1600C9D3P1K2)x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

#### (A) Power Supply: Seasonic 430W (SS-430HB)

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>3.26</b>               | <b>39.12</b>       | <b>4.14</b>   | <b>49.68</b>       |
| <b>5V</b>      | <b>2.83</b>               | <b>14.15</b>       | <b>4.12</b>   | <b>20.6</b>        |
| <b>5VSB</b>    | <b>0.209</b>              | <b>1.045</b>       | <b>0.034</b>  | <b>0.17</b>        |



**1.a.Test Environment:**

The same as above but with PCI-E Graphics card

|                      |                               |
|----------------------|-------------------------------|
| <b>Graphics card</b> | <b>WinFast PX9500GT 512MB</b> |
|----------------------|-------------------------------|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>5.05</b>               | <b>60.6</b>        | <b>4.83</b>   | <b>57.96</b>       |
| <b>5V</b>      | <b>3.09</b>               | <b>15.45</b>       | <b>3.58</b>   | <b>17.9</b>        |
| <b>5VSB</b>    | <b>0.253</b>              | <b>1.265</b>       | <b>0.032</b>  | <b>0.16</b>        |

**1.b.Test Environment:**

**PCI-E Graphics card**

|                      |  |
|----------------------|--|
| <b>Graphics card</b> | <b>PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV)</b> |
|----------------------|--|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>8.34</b>               | <b>100.08</b>      | <b>10.89</b>  | <b>130.68</b>      |
| <b>5V</b>      | <b>3.02</b>               | <b>15.1</b>        | <b>3.17</b>   | <b>15.85</b>       |
| <b>5VSB</b>    | <b>0.285</b>              | <b>1.425</b>       | <b>0.049</b>  | <b>0.245</b>       |

**2.Test Environment:**

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel(R) Core(TM) i5-2310 CPU 2.90 GHz</b>        |
| <b>Memory</b>      | <b>Kingston DDR3 1333 4G<br/>(J2108BCSE-DJ-F) x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>3.03</b>               | <b>36.36</b>       | <b>5.78</b>   | <b>69.36</b>       |
| <b>5V</b>      | <b>2.96</b>               | <b>14.8</b>        | <b>2.1</b>  | <b>10.5</b>        |
| <b>5VSB</b>    | <b>0.227</b>              | <b>1.135</b>       | <b>0.074</b>  | <b>0.37</b>        |

**2.a.Test Environment:**

The same as above but with PCI-E Graphics card

|                      |                               |
|----------------------|-------------------------------|
| <b>Graphics card</b> | <b>WinFast PX9500GT 512MB</b> |
|----------------------|-------------------------------|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>4.68</b>               | <b>56.16</b>       | <b>7.25</b>   | <b>87</b>          |
| <b>5V</b>      | <b>3.45</b>               | <b>17.25</b>       | <b>2.1</b>  | <b>10.5</b>        |
| <b>5VSB</b>    | <b>0.265</b>              | <b>1.325</b>       | <b>0.074</b>  | <b>0.37</b>        |

**2.b.Test Environment:****PCI-E Graphics card**

|                      |  |
|----------------------|--|
| <b>Graphics card</b> | <b>PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV)</b> |
|----------------------|--|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>8.24</b>               | <b>98.88</b>       | <b>12.78</b>  | <b>153.36</b>      |
| <b>5V</b>      | <b>3.29</b>               | <b>16.45</b>       | <b>2.91</b>   | <b>14.55</b>       |
| <b>5VSB</b>    | <b>0.299</b>              | <b>1.495</b>       | <b>0.071</b>  | <b>0.355</b>       |

### 3.Test Environment:

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel(R) Xeon(R) Processor E3-1275 3.40GHz</b>    |
| <b>Memory</b>      | <b>Kingston DDR3 1600 4G<br/>(KHX1600C9D3P1K2)x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

#### (A) Power Supply: Seasonic 430W (SS-430HB)

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>3.65</b>               | <b>43.8</b>        | <b>7.96</b>   | <b>95.52</b>       |
| <b>5V</b>      | <b>2.86</b>               | <b>14.3</b>        | <b>4.11</b>   | <b>20.55</b>       |
| <b>5VSB</b>    | <b>0.328</b>              | <b>1.64</b>        | <b>0.054</b>  | <b>0.27</b>        |

### 3.a.Test Environment:

The same as above but with PCI-E Graphics card

|               |                        |
|---------------|------------------------|
| Graphics card | WinFast PX9500GT 512MB |
|---------------|------------------------|

(A) Power Supply: Seasonic 430W (SS-430HB)

| Voltage | MS-DOS<br>Boot up |             | Windows XP SP2 64 bit<br>3DMARK 2003+<br>Prime95 |             |
|---------|-------------------|-------------|--|-------------|
|         | Current<br>( A )  | Power ( W ) | Current<br>( A )                                 | Power ( W ) |
| 12V     | 5.49              | 65.88       | 9.31   | 111.72      |
| 5V      | 3.23              | 16.15       | 3.74   | 18.7        |
| 5VSB    | 0.364             | 1.82        | 0.046  | 0.23        |

### 3.b.Test Environment:

#### PCI-E Graphics card

|               |   |
|---------------|---|
| Graphics card | PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV) |
|---------------|---|

#### (A) Power Supply: Seasonic 430W (SS-430HB)

| Voltage | MS-DOS<br>Boot up |             | Windows XP SP2 64 bit<br>3DMARK 2003+<br>Prime95 |             |
|---------|-------------------|-------------|--|-------------|
|         | Current<br>( A )  | Power ( W ) | Current<br>( A )                                 | Power ( W ) |
| 12V     | 9.24              | 110.88      | 11.82  | 141.84      |
| 5V      | 3.2               | 16          | 2.93   | 14.65       |
| 5VSB    | 0.284             | 1.42        | 0.059  | 0.295       |



**4.Test Environment:**

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel(R) Xeon(R) Processor E3-1275 3.40GHz</b>    |
| <b>Memory</b>      | <b>Kingston DDR3 1333 4G<br/>(J2108BCSE-DJ-F) x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>3.82</b>               | <b>45.84</b>       | <b>7.53</b>   | <b>90.36</b>       |
| <b>5V</b>      | <b>3.05</b>               | <b>15.25</b>       | <b>4.16</b>   | <b>20.8</b>        |
| <b>5VSB</b>    | <b>0.31</b>               | <b>1.55</b>        | <b>0.071</b>  | <b>0.355</b>       |

#### 4.a.Test Environment:

The same as above but with PCI-E Graphics card

|               |                        |
|---------------|------------------------|
| Graphics card | WinFast PX9500GT 512MB |
|---------------|------------------------|

(A) Power Supply: Seasonic 430W (SS-430HB)

| Voltage | MS-DOS<br>Boot up |             | Windows XP SP2 64 bit<br>3DMARK 2003+<br>Prime95 |             |
|---------|-------------------|-------------|--|-------------|
|         | Current<br>( A )  | Power ( W ) | Current<br>( A )                                 | Power ( W ) |
| 12V     | 5.46              | 65.52       | 8.46   | 101.52      |
| 5V      | 3.32              | 16.6        | 3.5  | 17.5        |
| 5VSB    | 0.384             | 1.92        | 0.067  | 0.335       |

#### 4.b.Test Environment:

##### PCI-E Graphics card

|               |   |
|---------------|---|
| Graphics card | PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV) |
|---------------|---|

##### (A) Power Supply: Seasonic 430W (SS-430HB)

| Voltage | MS-DOS<br>Boot up |             | Windows XP SP2 64 bit<br>3DMARK 2003+<br>Prime95 |             |
|---------|-------------------|-------------|--|-------------|
|         | Current<br>( A )  | Power ( W ) | Current<br>( A )                                 | Power ( W ) |
| 12V     | 9.21              | 110.52      | 11.49  | 137.88      |
| 5V      | 3.37              | 16.85       | 2.97   | 14.85       |
| 5VSB    | 0.187             | 0.935       | 0.069  | 0.345       |

**5.Test Environment:**

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel (R) Celeron (R) CPU G540 2.50GHz</b>        |
| <b>Memory</b>      | <b>Kingston DDR3 1600 4G<br/>(KHX1600C9D3P1K2)x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>1.37</b>               | <b>16.44</b>       | <b>2.22</b>   | <b>26.64</b>       |
| <b>5V</b>      | <b>2.7</b>                | <b>13.5</b>        | <b>2.52</b>   | <b>12.6</b>        |
| <b>5VSB</b>    | <b>0.315</b>              | <b>1.575</b>       | <b>0.072</b>  | <b>0.36</b>        |

**5.a.Test Environment:**

The same as above but with PCI-E Graphics card

|                      |                               |
|----------------------|-------------------------------|
| <b>Graphics card</b> | <b>WinFast PX9500GT 512MB</b> |
|----------------------|-------------------------------|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>2.67</b>               | <b>32.04</b>       | <b>3.74</b>   | <b>44.88</b>       |
| <b>5V</b>      | <b>2.99</b>               | <b>14.95</b>       | <b>2.53</b>   | <b>12.65</b>       |
| <b>5VSB</b>    | <b>0.359</b>              | <b>1.795</b>       | <b>0.049</b>  | <b>0.245</b>       |

**5.b.Test Environment:**

**PCI-E Graphics card**

|                      |  |
|----------------------|--|
| <b>Graphics card</b> | <b>PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV)</b> |
|----------------------|--|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>6.41</b>               | <b>76.92</b>       | <b>4.82</b>   | <b>57.84</b>       |
| <b>5V</b>      | <b>2.97</b>               | <b>14.85</b>       | <b>2.67</b>   | <b>13.35</b>       |
| <b>5VSB</b>    | <b>0.17</b>               | <b>0.85</b>        | <b>0.047</b>  | <b>0.235</b>       |

**6.Test Environment:**

|                    |  |
|--------------------|--|
| <b>Motherboard</b> | <b>FS-A74</b>  |
| <b>CPU</b>         | <b>Intel (R) Celeron (R) CPU G540 2.50GHz</b>        |
| <b>Memory</b>      | <b>Kingston DDR3 1333 4G<br/>(J2108BCSE-DJ-F) x2</b> |
| <b>HDD</b>         | <b>Western Digital 1TB (WD10EARS)</b>                |
| <b>Back Plan</b>   | <b>BPE-1308A</b>                                     |

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>1.35</b>               | <b>16.2</b>        | <b>2.24</b>   | <b>26.88</b>       |
| <b>5V</b>      | <b>2.9</b>                | <b>14.5</b>        | <b>3.22</b>   | <b>16.1</b>        |
| <b>5VSB</b>    | <b>0.311</b>              | <b>1.555</b>       | <b>0.05</b>   | <b>0.25</b>        |

**6.a.Test Environment:**

The same as above but with PCI-E Graphics card

|                      |                               |
|----------------------|-------------------------------|
| <b>Graphics card</b> | <b>WinFast PX9500GT 512MB</b> |
|----------------------|-------------------------------|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>2.69</b>               | <b>32.28</b>       | <b>4.36</b>   | <b>52.32</b>       |
| <b>5V</b>      | <b>3.15</b>               | <b>15.75</b>       | <b>2.9</b>  | <b>14.5</b>        |
| <b>5VSB</b>    | <b>0.317</b>              | <b>1.585</b>       | <b>0.053</b>  | <b>0.265</b>       |



**6.b.Test Environment:****PCI-E Graphics card**

|                      |  |
|----------------------|--|
| <b>Graphics card</b> | <b>PowerColor HD6770 1GB GDDR5 Vortex II(AX6770 1GBD5-PPV)</b> |
|----------------------|--|

**(A) Power Supply: Seasonic 430W (SS-430HB)**

| <b>Voltage</b> | <b>MS-DOS<br/>Boot up</b> |                    | <b>Windows XP SP2 64 bit<br/>3DMARK 2003+<br/>Prime95</b> |                    |
|----------------|---------------------------|--------------------|---|--------------------|
|                | <b>Current<br/>( A )</b>  | <b>Power ( W )</b> | <b>Current<br/>( A )</b>                                  | <b>Power ( W )</b> |
| <b>12V</b>     | <b>5.66</b>               | <b>67.92</b>       | <b>8.68</b>   | <b>104.16</b>      |
| <b>5V</b>      | <b>3.14</b>               | <b>15.7</b>        | <b>2.83</b>   | <b>14.15</b>       |
| <b>5VSB</b>    | <b>0.152</b>              | <b>0.76</b>        | <b>0.057</b>  | <b>0.285</b>       |

## 5. Performance Test

### 5.1 3D MARK(2001、2003、2005)

Windows XP SP3

| WEIGHTED SUITE    | Test Environment  | Result | Remark |
|-------------------|---|--------|--------|
| 3DMARK2001 Scores | Intel(R) Xeon(R) Processor<br>E3-1275 3.40GHz<br>Kingston DDR3 1600 4G<br>(KHX1600C9D3P1K2) X2<br>Western Digital 1.0TB<br>(WD10EALX) | Pass   | 23481  |
| 3DMARK2003 Scores |   | Pass   | 11668  |
| 3DMARK2005 Scores |   | Pass   | 8256   |

### 5.2 3D MARK2006

Windows XP SP3

| Item | WEIGHTED SUITE   | Test Environment   | Result | Remark |
|------|------------------|--|--------|--------|
| 1    | 3DMARK Source    | Intel(R) Xeon(R)<br>Processor<br>E3-1275 3.40GHz<br>Kingston DDR3 1600 4G<br>(KHX1600C9D3P1K2) X2<br>Western Digital<br>1.0TB (WD10EALX) | Pass   | 5117   |
| 2    | SM2.0 Source     |  | Pass   | 1844   |
| 3    | HDR/SM3.0 Source |  | Pass   | 1800   |
| 4    | CPU Source       |  | Pass   | 6791   |

### 5.3 AquaMark3

| Test Environment  |
|---|
| <b>Intel(R) Xeon(R) Processor E3-1275 3.40GHz<br/>Kingston DDR3 1600 4G (KHX1600C9D3P1K2) X2<br/>Western Digital 1.0TB (WD10EALX)</b> |

Windows XP SP3

| Item | WEIGHTED SUITE | Result | Remark |
|------|----------------|--------|--------|
| 1    | GFX            | Pass   | 6777   |
| 2    | CPU            | Pass   | 22965  |

### 5.4 CINEBENCH

| Test Environment  |
|---|
| <b>Intel(R) Xeon(R) Processor E3-1275 3.40GHz<br/>Kingston DDR3 1600 4G (KHX1600C9D3P1K2) X2<br/>Western Digital 1.0TB (WD10EALX)</b> |

Windows XP SP3

| Item | WEIGHTED SUITE | Result | Remark   |
|------|----------------|--------|----------|
| 1    | GFX            | Pass   | 3.01 fps |
| 2    | CPU            | Pass   | 40.8 pts |

**5.5 ZD CPUMARK**

|   |
|---|
| <b>Test Environment</b>   |
| <b>Intel(R) Xeon(R) Processor E3-1275 3.40GHz<br/>Kingston DDR3 1600 4G (KHX1600C9D3P1K2) X2<br/>Western Digital 1.0TB (WD10EALX)</b> |

**Windows XP SP3**

| <b>Item</b> | <b>WEIGHTED SUITE</b> | <b>Result</b> | <b>Remark</b> |
|-------------|-----------------------|---------------|---------------|
| <b>1</b>    | <b>SCORE</b>          | Pass          | 576           |

## 5.6 Storage Performance

### 5.6.1 HDD

Test environment:

OS Windows XP professional SP3

Program (HD Tune)

| HDD MODEL                     | INTERFACE | capacity | Average    | Burst Rate  | Access Time |
|-------------------------------|-----------|----------|------------|-------------|-------------|
| Western Digital<br>WD5000AAKS | SATA      | 500GB    | 74.2MB/sec | 110.5MB/sec | 14.5ms      |
| Western Digital<br>WD10EARS   |           | 1TB      | 77.7MB/sec | 96.2 MB/sec | 15.8ms      |
| Western Digital<br>WD10EALX   |           | 1TB      | 93.1MB/sec | 102.8MB/sec | 13.1 ms     |