

QE 【Workstation / Panel PC】

P5 Verification Test Plan

Release No : 08P010019

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Model | AEC-6920 |
| Description | AEC-6920 Embedded Controller |
| Test Configuration | <input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : BOXER AEC-6920 A1.0 (COM-945 A1.0) <input checked="" type="checkbox"/> BIOS : AEC-6920 BIOS Rev 1.1(04/19/2007) <input checked="" type="checkbox"/> Riser Card : PCB:1907R06P01 A1.0 <input checked="" type="checkbox"/> I/O Board : PCB:1907T07303 A1.0 <input checked="" type="checkbox"/> M/B Chipset : <input checked="" type="checkbox"/> CPU Type : Intel(R) Core DUO/SOLO CPU <input checked="" type="checkbox"/> North Bridge : Intel 945GM <input checked="" type="checkbox"/> South Bridge : Intel ICH7 <input checked="" type="checkbox"/> VGA Chipset : Intel 945GM <input checked="" type="checkbox"/> Audio Chipset : Realtek AC'97 Audio <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82573 Gigabit Ethernet <input checked="" type="checkbox"/> I/O Chipset : ITE-8712 <input checked="" type="checkbox"/> TV Chipset : Intel 945GM <input checked="" type="checkbox"/> Remark : AEC-6920 A1.0 QE NPDP P5 External Report |
| Test Result Summary | |
| <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____ | |

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Issue date

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There are 3 test results in this document; they are described as follows:

- Pass: Function worked perfectly
- Fail: Function failed and must be modified in the next version
- N/A: Outside of specification or no test equipment

Platform Information:

| Item | Device Information | Test Item |
|---------------------|---------------------------------------------------------------------|-------------------------|
| PCB Model / Version | BOXER AEC-6920 A1.0 (MB COM-945 Rev. A1.0) | 1,2,3,4,5,6,7,8,9,10,11 |
| BIOS / Version | AEC-6920 BIOS Rev 1.1 (04/19/2007) | 1,2,3,4,5,6,7,8,9,10,11 |
| CPU Type | Intel Core 2 Duo T7200 / 2.0GHz | 1,2,3,4,5,6,7,8,9,10,11 |
| Memory Type | Apacer DDRII 533 MHz 512MB | 1,2,3,4,5,6,7,8,9,10,11 |
| Primary IDE Master | Fujitsu 2.5" MHV2040AT 40GB | 1,2,3,4,5,6,7,8,9,10,11 |
| Primary IDE Slave | N/A | N/A |
| CRT | ViewSonic E70 17" | 1,2,3,4,5,6,7,8,9,10,11 |
| LCD | N/A | N/A |
| Compact Flash | N/A | N/A |
| I/O Board | PCB:1907T07303 A1.0 | 1,2,3,4,5,6,7,8,9,10,11 |
| Riser Card | PCB:1907R06P01 A1.0 | 1,2,3,4,5,6,7,8,9,10,11 |
| Operating System | [] Linux-RedHat 9.0 or [X] Fedora Core 6.0 | 9 |
| | Windows Server 2003 English Version / Standard Edition 5.2.3790 | N/A |
| | Windows XP Professional English Version V2002 Service Pack 2 | 1,2,3,4,5,6,7,8,9,10,11 |
| | Windows 2000 Professional English Version V5.00.2195 Service Pack 4 | N/A |
| | Windows 98SE English Version V4.10.2222A | N/A |
| | Windows NT Workstation 4.0 English Version Service Pack6 | N/A |
| | MS-DOS 6.22 | N/A |
| Power Supply | ATX Power | N/A |
| | AT Power | N/A |
| | DC Input 9~30V (Phoenix connector) | 1,2,3,4,5,6,7,8,9,10,11 |
| | Optional AC power adapter , input voltage range 100~240 V | |

Test Result for Certification

1. Dynamic / Boot_UP Burn_In Test

| | |
|----------------------------------------|---------------------------------------------------------------------------------|
| PCB Model / Version | BOXER AEC-6920 A0.2 (COM-945 A1.0) |
| BIOS | AEC-6920 BIOS Rev 0.4 (01/07/2007) |
| Operating System | Windows XP / Run PassMark Burn In Test Pro 4.0 |
| CPU | Intel Core 2 Duo T7200 / 2.0GHz |
| Memory | Twin Mos DDRII 533 512MB SDRAM / V59C1512804QBF31(Wide Temp) |
| Primary IDE Master | Fujitsu 2.5" MHT2040AC 40GB |
| Primary IDE Slave | N/A |
| CRT | ViewSonic E653 15" |
| LCD | N/A |
| Compact Flash | PQI Type I 4GB |
| Backplane | N/A |
| Riser Card | PCB:1907R06P00 A0.1 |
| I/O Board | PCB:1907T07301 A0.2 |
| Inverter | N/A |
| Touch Panel | N/A |
| Onboard VGA Chipset / Driver Version | Mobile Intel(R) 945GM Express Chipset Family Ver:6.14.10.4704(10/6/2006) |
| Onboard LAN Chipset / Driver Version | Intel(R) PRO/1000PL Network Connection Ver:9.5.12.0(7/26/2006) |
| Onboard Audio Chipset / Driver Version | Realtek AC97 Audio Ver:5.10.0.5820(3/25/2005) |
| DC Power | DC Input 9~30V (Phoenix connector) |
| Adapter | FSP FSP120-AAB AC Power Adapter ,input voltage range 100V~240V (DC Output: 19V) |

1.1. HDD (Wide Temp.)

| Test Method | Test Condition | Result | | |
|------------------------------------|--------------------------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| Diagnostics Software Burn-In Test. | -15°C~55°C, 0%RH~90%RH, 48 hrs | X | | |
| Power On/Off Test. | -15°C~50°C, 0%RH~90%RH, 24hrs | | | X |
| High Temperature Storage Test | 70 °C (48 Hours) | X | | |
| Low Temperature Storage Test | -20 °C (48 Hours) | X | | |
| Humidity Test | 40 °C/95%RH (48 Hours) | X | | |
| Cold Start Test | -15 °C (Doing 50 times Power On/Off) | X | | |

1.2. Compact Flash

| Test Method | Test Condition | Result | | |
|------------------------------------|--------------------------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| Diagnostics Software Burn-In Test. | 0°C~60°C, 0%RH~90%RH, 48 hrs | X | | |
| Power On/Off Test. | -15°C~50°C, 0%RH~90%RH, 24hrs | | | X |
| High Temperature Storage Test | 70 °C (48 Hours) | X | | |
| Low Temperature Storage Test | -20 °C (48 Hours) | X | | |
| Humidity Test | 40 °C/95%RH (48 Hours) | X | | |
| Cold Start Test | -15 °C (Doing 50 times Power On/Off) | X | | |

2. Power On and Reset Test

| Test Method | Test Condition | Result | | |
|--------------------------------------------------------|------------------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| Power On/Off Test in DOS Mode-100V Power Function Test | 10 times in Room Temperature | X | | |
| Power On/Off Test in DOS Mode-210V Power Function Test | 10 times in Room Temperature | X | | |
| KB Reset in Dos Mode-110V Power Function Test | 20 times in Room Temperature | X | | |
| Hardware Reset in Dos Mode-110V Power Function Test | 20 times in Room Temperature | X | | |

3. OSD Control Function Test

| Test Method | Test Condition | Result | | |
|------------------------------|------------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| OSD Control Test | OSD Control Function | | | X |
| OSD – On Screen Display Test | OSD –On Screen Display | | | X |
| OSD Light Test | OSD Control Function | | | X |

4. I/O Peripheral Function Test

| I/O Peripheral Function Test –I/O Function | Result | | |
|---------------------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| Floppy Connector / Driver A: | | | X |
| Primary IDE Master | X | | |
| Primary IDE Slave | X | | |
| Secondary IDE Master (Reserved for CF Card) | | | X |
| Secondary IDE Slave (Reserved for CF Card) | | | X |
| Third IDE Master | | | X |
| Third IDE Slave | | | X |
| RAID 0 Function Test | | | X |
| RAID 1 Function Test | | | X |
| SATA1 / Serial ATA Connector 1 | X | | |
| SATA2 / Serial ATA Connector 2 | | | X |
| SATA3 / Serial ATA Connector 3 | | | X |
| SATA4 / Serial ATA Connector 4 | | | X |
| Compact Flash – Type I | X | | |
| Compact Flash – Type II | X | | |
| DOC (Disk On Chip) | | | X |
| DOM (Disk On Module) – 40 Pin | | | X |
| DOM (Disk On Module) – 44 Pin | X | | |
| COM 1 | X | | |
| COM 2-232 | X | | |
| COM 2-422 | X | | |
| COM 2-485 | X | | |
| COM 2-Ring /+5V /+12V | | | X |
| COM 3 | X | | |
| COM 4 | X | | |
| COM 5 | | | X |
| COM 6 | | | X |

| | | | |
|----------------------------------|---------------|-------------|------------|
| PS/2 Mouse & Keyboard (Internal) | | | X |
| PS/2 Mouse & Keyboard (External) | X | | |
| Audio Connector | X | | |
| Audio 5.1 Channel / S/P DIF | | | X |
| LPT 1 | | | X |
| LPT 2 | | | X |
| SIR / 115.2 Kbps | | | X |
| FIR / 4M bps | | | X |
| USB 1/2 Ports | X | | |
| USB 3/4 Ports | X | | |
| USB 5/6 Ports | | | X |
| USB 7 Ports | | | X |
| USB 2.0 1/2 Ports | X | | |
| USB 2.0 3/4 Ports | X | | |
| USB 2.0 5/6 Ports | | | X |
| USB 2.0 7 Ports | | | X |
| DVI Function | | | X |
| DIO Connector | | | X |
| Card Bus | X | | |
| PC/104 | | | X |
| PC/104-Plus | | | X |
| PCI-104 | | | X |
| TFT TTL LCD | | | X |
| TFT LVDS LCD | | | X |
| TV-out / S Terminal | X | | |
| TV-out / AV Terminal | | | X |
| Touch Screen – 8 Wire | | | X |
| Touch Screen – 5 Wire | | | X |
| DIMM Slots | X | | |
| Watchdog IRQ n | | | X |
| Watchdog Software Control | X | | |
| CPU FAN Connector | | | X |
| System FAN Connector | | | X |
| Onboard IDE LED | | | X |
| Onboard Power LED | | | X |
| Front Panel | Result | | |
| | Pass | Fail | N/A |
| Power On Button | X | | |
| IDE LED | X | | |
| External Buzzer | | | X |
| On Board Buzzer | X | | |
| Power LED | X | | |
| Reset Switch | X | | |
| Keyboard Lock | | | X |
| Jumpers Function | Result | | |
| | Pass | Fail | N/A |

| | | | |
|-------------------------------------------------|---------------|-------------|------------|
| ATX simulates AT | | | X |
| Audio Out Selection (W/O & W/ Amplifier) | | | X |
| LCD Power Select | | | X |
| COM1-Ring/5V/12V Selection | | | X |
| COM2-Ring/5V/12V Selection | | | X |
| COM2 RS-232/422/485 Selection (Depends on BIOS) | | | X |
| COM3-Ring/5V/12V Selection | | | X |
| COM4-Ring/5V/12V Selection | | | X |
| Clear CMOS | X | | |
| Touch Screen Operating Mode Selection | | | X |
| Clock Shift of TFT LCD | | | X |
| Power Connector & Function | Result | | |
| | Pass | Fail | N/A |
| 5V only Power for Big 4P | | | X |
| ATX Power Connector | | | X |
| ATX Power_12V Connector | | | X |
| AT Power Connector | | | X |
| Big 4P Power Connector | | | X |
| Mini 4P Power Connector | | | X |
| External Power Connector(9v~30V) | X | | |
| Option ATX Power Connector (PS-ON / +5VSB) | | | X |
| LAN Connector & Function | Result | | |
| | Pass | Fail | N/A |
| LAN Speed LED | LAN1 | X | |
| | LAN2 | X | |
| LAN Active LED | LAN1 | X | |
| | LAN2 | X | |
| LAN Link LED | LAN1 | X | |
| | LAN2 | X | |
| LAN 10/100 Ethernet | X | | |
| LAN 1G Ethernet | X | | |
| PCI Connector & Function | Result | | |
| | Pass | Fail | N/A |
| Mini PCI Slots | | | X |
| PCI Slots | X | | |
| PCI Express | X | | |

5. Power Consumption Test (Run Prime95 Program)

| Model | Test Environment | | | | Note |
|---------------------|-------------------------------------|---|-------------------------------------|---|------|
| | DC Power Supply: INSTEK PSH-3630 | | | | |
| | CPU: Intel Core 2 DuoT7200 2.0G | | CPU: Intel Core 2 DuoT55001.66G | | |
| Os Environment | English Windows XP Professional SP2 | | English Windows XP Professional SP2 | | |
| Normal Mode (+9V) | 4.67 | A | 4.32 | A | |
| Suspend Mode (+9V) | 2.11 | A | 2.22 | A | |
| Normal Mode (+12V) | 3.58 | A | 3.28 | A | |
| Suspend Mode (+12V) | 1.55 | A | 1.64 | A | |
| Normal Mode (+24V) | 1.77 | A | 1.63 | A | |
| Suspend Mode (+24V) | 0.91 | A | 0.93 | A | |
| Normal Mode (+28V) | 1.53 | A | 1.43 | A | |
| Suspend Mode (+28V) | 0.78 | A | 0.82 | A | |

6. Timer Accuracy Test

| System Clock & RTC Clock Test | | | | |
|-------------------------------|---------------------------|--------|------|-----|
| Test Method | Margin for error | Result | | |
| | | Pass | Fail | N/A |
| System Clock in Power On Mode | ±1 second during 24 hours | X | | |
| RTC Clock in Power On Mode | ±1 second during 24 hours | X | | |
| RTC Clock in Power Off Mode | ±1 second during 24 hours | X | | |
| Watchdog Timer Test | | Result | | |
| | | Pass | Fail | N/A |
| Time-out Interval | 10 sec | X | | |
| | 60 sec | X | | |
| | 255 sec | X | | |

7. Network HUB / LAN Connection Test

| Location | | LED Type | | | | Result | | |
|----------------|--------------|--------------------------|--------------|-----------|-------------------|--------|------|-----|
| | | | | | | Pass | Fail | N/A |
| LAN1 LED | | Active LED | | | | X | | |
| | | Link LED | | | | X | | |
| | | Speed LED | | | | X | | |
| LAN2 LED | | Active LED | | | | X | | |
| | | Link LED | | | | X | | |
| | | Speed LED | | | | X | | |
| Location | Speed | HUB Type | Cable Length | HUB Speed | Onboard LAN Speed | Result | | |
| | | | | | | Pass | Fail | N/A |
| Onboard LAN1/2 | 10/1000 Mbps | HP J4095A 24 Ports | 100M | 100 Mbps | 100 Mbps | X | | |
| | | D-Link DGS-1008T | 100M | 1Gbps | 1Gbps | X | | |
| | | Intel InBusiness 8 Ports | 100M | 100 Mbps | 100 Mbps | X | | |
| | | LEMEL LM-S5 5 Ports | 100M | 100 Mbps | 100 Mbps | X | | |
| | | Accton Desktop-3005 | 100M | 100 Mbps | 100 Mbps | X | | |
| | | SVEC FD916H | 100M | 10 Mbps | 10 Mbps | X | | |

8. Hardware Compatibility

| CPU Compatible Test | | | | | | |
|----------------------------------------------|------------------|-------------|-------------------|--------|------|-----|
| Type | Clock Speed | FSB | Prime95 Version | Result | | |
| | | | | Pass | Fail | N/A |
| Intel Core 2 Duo T7200 | 2.00GHz | 533MHz | V2414 | X | | |
| Intel Core 2 Duo T5500 | 1.66GHz | 533MHz | V2414 | X | | |
| Memory Compatibility Test | | | | | | |
| Brand / Memory Size | Chipset | Frequency | MemTest86 Version | Result | | |
| | | | | Pass | Fail | N/A |
| DSL/512MB | ELPIDA E5108AGBG | 667MHz | V1.65 | X | | |
| Apacer/512MB | V59C1512804QBF31 | 533 MHz | V1.65 | X | | |
| Apacer/1GB | V59C1512804QBF31 | 667 MHz | V1.65 | X | | |
| Audio Basic Function Test | | | | Result | | |
| | | | | Pass | Fail | N/A |
| System Sound | | | | X | | |
| CD_In | | | | X | | |
| CD_In Sound Recorder | | | | X | | |
| Play Sound Recorder | | | | X | | |
| Line Out | | | | X | | |
| Line In | | | | X | | |
| Line In Sound Record | | | | X | | |
| MIC Speaker | | Dynamic | | X | | |
| | | Condenser | | X | | |
| MIC Sound Recorder | | Dynamic | | X | | |
| | | Condenser | | X | | |
| Audio 5.1 Channel with S/P DIF Function Test | | | | Result | | |
| | | | | Pass | Fail | N/A |
| 2-channel mode for stereo speaker output | | | | | | X |
| 4-channel mode for 4 speaker output | | | | | | X |
| 6-channel mode for 5.1 speaker output | | | | | | X |
| 8-channel mode for 7.1 speaker output | | | | | | X |
| S/P DIF function Test | | Input | | | | X |
| | | Output | | | | X |
| On Board TV Function Test | | | | Result | | |
| | | | | Pass | Fail | N/A |
| NTSC | | AV Terminal | | X | | |
| PAL | | | | X | | |
| NTSC | | S Terminal | | | | X |
| PAL | | | | | | X |
| On Board LCD Function Test | | | | | | |

| TFT LCD | Type | Voltage | Result | | |
|---------|------------------------------------------------------|---------|--------|------|-----|
| | | | Pass | Fail | N/A |
| LVDS | AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3) | 3.3V | | | X |
| | AU B104SN02 / 10.4" / 800*600 / 18bit (4:3) | 3.3V | | | X |
| | Hyundai HT12X11-200 / 12.1" / 1024*768 / 18bit (4:3) | 3.3V | | | X |
| | AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3) | 3.3V | | | X |
| | AU M170EG01 / 17" / 1280*1024 / 48bit (4:3) | 5V | | | X |
| | AU M201UN02 V.5 / 20.1" / 1600x1200 / 48bit (4:3) | 5V | | | X |
| TTL | Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3) | 5V | | | X |
| | NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3) | 3.3/5V | | | X |
| | Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3) | 3.3V | | | X |
| | LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3) | 3.3V | | | X |
| | Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3) | 5V | | | X |

PCI Slot Function (PCI Adapter Card) Test

| Model | Type | Result | | |
|----------------------------------------------------------------------------|--------------|--------|------|-----|
| | | Pass | Fail | N/A |
| CECUBE GC-R9250PCI-D3 (ATI REDEON9250 256MB) | VGA Card | X | | |
| CHAINTECH NVIDIA GeForce4 MX440-8X | VGA Card | X | | |
| SC3000 CMI8738/C3DX | Sound Card | X | | |
| Takram DC-395U V1.02 | SCSI Card | X | | |
| ADAPTEC Ultra160 SCSI ASC-29160 | SCSI Card | X | | |
| I-VIEW CP-1400AS (with Age STD-477FAI CCD) | Capture Card | X | | |
| Intel GD82559 10/100 Mbps Fast Ethernet Adapter | LAN Card | X | | |
| ADMtek AN983B Ethernet Adapter | LAN Card | X | | |
| D-Link DGE-530T 1000BASE-T Gigabit Ethernet Adapter | LAN Card | X | | |
| D-Link DWL-520+ Wireless LAN | LAN Card | X | | |
| ADAPTEC 1420SA RoHS 4-Port SATA II RAID | RAID Card | X | | |
| D-Link DU-520 USB 2.0 | USB Hub Card | X | | |
| Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB | SATA Card | X | | |

ISA Slot Function Test

| Model | Result | | |
|------------------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| Creative CT4170 Sound Blaster Sound Card | | | X |
| Adaptec AHA-1510/20/22B SCSI Card | | | X |

PCI-Express Function Test

| Model | Result | | |
|------------------------------------------------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| SksKconnect SK-9E21D 10/100/1000Base-T Adapter PCI-Express X1 LAN Card | X | | |
| WinFast PX6200 TC TDH PCI-Express X16 VGA Card | X | | |
| ASUS EAX1600PRO PCI-Express x16 VGA Card | X | | |

HDD Compatibility Test

| Model | Result |
|-------|--------|
| | |

| | Pass | Fail | N/A |
|-------------------------------------------------------|------|------|-----|
| FUJITSU / MHT 2020AC / 20GB / ATA-100 | X | | |
| FUJITSU / MHV 2040AT / 40GB / ATA-100 | X | | |
| FUJITSU / MHV 2040BT / 40GB / ATA-100/S-ATA | X | | |
| Seagate / ST340014A / 40GB / Barracuda 7200.7 | | | X |
| Seagate / ST3160812A / 160GB/ATA100 | | | X |
| Quantum / Fireball Plug AS / 30GB / ATA-100 | | | X |
| Seagate / ST380013A / 80GB / ATA-100 | | | X |
| Western Digital/WD400BB-75DEA0 / 40GB / ATA-100 | | | X |
| Western Digital/WD8800JD-00LSA0 / 80GB / ATA-100/SATA | | | X |

| Model | Result | | |
|-----------------------------------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| TEAC CD-ROM CD-540E 40X | | | X |
| BenQ DW1655 OB2 16 x DVD ReWriter | | | X |
| Acer DVP1640A / 16X / DVD-ROM / ATA33 | | | X |
| Pioneer / DVR-A11FXC1 / 8X DVD-RW / 6X DVD-RW / ATA66 | | | X |
| Pioneer / DVD-126D / 16X / DVD-ROM / ATA66 | | | X |
| Pioneer / DVD-121 / 16X / DVD-ROM / ATA66 | | | X |
| SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X / ATA33 | | | X |
| IBM HL-DT-ST / GCR 8480B-48X /CD-ROM ATA33 | | | X |

IDE Cable Function test

| IDE Model | Result | | |
|---------------------|--------|------|-----|
| | Pass | Fail | N/A |
| 40 Pin Cable ATA100 | | | X |
| 44 Pin Cable ATA33 | X | | |
| 80 Pin Cable ATA100 | | | X |

USB Function Test

| USB Basic Function Test | Result | | |
|-------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| USB Controller | X | | |
| USB 2.0 Controller | X | | |
| USB Keyboard Support | X | | |
| USB Mouse Support | | | X |
| USB 1.1 Compatible Test | Result | | |
| | Pass | Fail | N/A |
| USB 1.1 Compatible Test | X | | |
| USB 2.0 Compatible Test | Result | | |
| | Pass | Fail | N/A |
| USB 2.0 Compatible Test | X | | |

| USB 2.0 Function Test | | Result | | |
|----------------------------------------------------------------------------------|------------------|--------|------|-----|
| | | Pass | Fail | N/A |
| Use High Speed Device USB2.0 CD-R/W Ben-Q / 4824W1-ON2 to play Nero CD/DVD Speed | | X | | |
| USB Device Full Loading Test | | Result | | |
| Model | | Pass | Fail | N/A |
| IBM 2.5"HDD | | | | X |
| Kingston DataTraveler II | | | | X |
| BENQ 4824WI-ON2 | | | | X |
| USB Card Reader + CF Card 512MB | | | | X |
| USB Mouse | | X | | |
| USB Thumb drive Transcend 256MB | | X | | |
| Floppy Disk Controller Function Test | | Result | | |
| | | Pass | Fail | N/A |
| Copy and compare file between C: and A / B: | | | | X |
| Change Floppy to None value | | | | X |
| Swap FDD | | | | X |
| Peripheral Compatibility-Storage Device | | | | |
| Model | Interface | Result | | |
| | | Pass | Fail | N/A |
| FUJITSU MCB3064SS | SCSI | | | X |
| IO-Mega zip 100 parallel port | Parallel | | | X |
| IO-Mega zip 100MB Internal ATAPI Drive | IDE | | | X |
| PQI FC512 512MB | Type-I CF Card | X | | |
| HITACHI / HMS360402D5CF00 | Type- II CF Card | X | | |
| Modular System Industrial Workstation Function Test | | Result | | |
| | | Pass | Fail | N/A |
| AC power outlet / inlet | | | | X |
| Power On / Off | | X | | |
| CD-ROM & Floppy drive included | | | | X |
| Lockable front-panel door | | | | X |
| Finger mouse | | | | X |
| Front USB Port | | X | | |
| 59 Data-entry&20/24 Function keys | | | | X |
| Digital brightness controller | | | | X |
| OSD Function Test | | | | X |
| Remote LCD Function Test | | | | X |
| Mechanism construction check | | Result | | |
| | | Pass | Fail | N/A |
| Panel construction check | | X | | |
| Case construction check | | X | | |
| PCMICA construction check | | X | | |
| I/O Port connector check | | X | | |
| USB connector check | | X | | |
| Component check | | X | | |

| On-Board RAID Function Test | | | | |
|--------------------------------------------------------------|------------|--------|------|-----|
| Model | Interface | Result | | |
| | | Pass | Fail | N/A |
| Set SATA HDDs as RAID 0 | SATA | | | X |
| Set SATA HDDs as RAID 1 | SATA | | | X |
| COM Port Send / Receive Test | | Result | | |
| | | Pass | Fail | N/A |
| Use software program: COMTEST.exe | | X | | |
| Use software program: LL5.exe | | X | | |
| Disk On Module [DOM] Compatibility Test | | | | |
| Model | Interface | Result | | |
| | | Pass | Fail | N/A |
| DOM-256-026P Rev: A1K20 | IDE 40 Pin | | | X |
| DOM-064-426P Rev: A2A11 | IDE 44 Pin | X | | |
| Mini PCI Card Compatibility Test | | | | |
| Model | Interface | Result | | |
| | | Pass | Fail | N/A |
| GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM) | LAN | X | | |
| PER -C20S Mini PCI RAID Card | SATA | X | | |
| COM/LPT Ports & RS-232/422/485 Function Test | | Result | | |
| | | Pass | Fail | N/A |
| RS-422 for COM2 | | X | | |
| RS-485 for COM2 | | X | | |
| COM1 | | X | | |
| COM2 | | X | | |
| COM3 | | X | | |
| COM4 | | X | | |
| COM5 | | | | X |
| COM6 | | | | X |
| LPT1 | | | | X |
| LPT2 | | | | X |
| Card Bus(PCMCIA) Compatibility Function Test | | | | |
| Model | Result | | | |
| | Pass | Fail | N/A | |
| PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting) | X | | | |
| Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD) | X | | | |
| PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II | X | | | |
| PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting) | X | | | |
| PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II | X | | | |

9. O.S. Compatibility Test

| Installation Operation System Compatibility Test | | Result | | | |
|----------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------|--------|------|-----|
| | | Pass | Fail | N/A | |
| Linux-Red-Hat 9.0 Kernel 2.4.20-8 | | | | X | |
| Fedora Core 4 | | | | X | |
| Fedora Core 6 | | X | | | |
| Windows Server 2003 English Version / Standard Edition 5.2.3790 | | | | X | |
| Windows XP Professional English Version V2002 Service Pack 2 | | X | | | |
| English Windows XP Professional x64 Edition with Service Pack 2 V2002 (Award says that 64bit OS does not support APM Mode) | | | | X | |
| Windows 2000 Professional English Version V5.00.2195 Service Pack 4 | | | | X | |
| English Windows 2000 Professional Service Pack 4 / 5.00.2195 (Server) | | | | X | |
| Windows 98SE English Version V4.10.2222A | | | | X | |
| Windows NT Workstation 4.0 English Version Service Pack6 | | | | X | |
| MS-DOS 6.22 | | | | X | |
| Utility and Driver Test | | | | | |
| OS | Drivers Version | | Result | | |
| | | | Pass | Fail | N/A |
| Fedora Core 6 (2.6.18-1.2798.fc6xen) | Chipset Software | Default Driver | X | | |
| | Graphics Media | Default Driver | X | | |
| | LAN Driver | Default Driver | X | | |
| | Audio Driver | Default Driver | X | | |
| Windows Server 2003 English Version / Standard Edition 5.2.3790 | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows XP Professional English Version V2002 Service Pack 2 | Chipset Software | Intel(R) Chipset Software Installation Utility Ver:7.2.2.1006(10/13/2005) | X | | |
| | Graphics Media | Mobile Intel(R) 945GM Express Chipset Family Ver:6.14.10.4704(10/6/2006) | X | | |
| | LAN Driver | Intel(R) PRO/1000PL Network Connection Ver:9.5.12.0(7/26/2006) | X | | |
| | Audio Driver | Realtek AC97 Audio Ver:5.10.0.5820(3/25/2005) | X | | |
| Windows XP Professional x64 Edition with Service Pack 2 V2002 English Version | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows 2000 Professional English | System | | | | X |

| | | | | | |
|--------------------------------------------------------------------|------------------|--|--|--|---|
| Version V5.00.2195 Service Pack 4 | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |
| Windows 98SE English Version V4.10.2222A | System | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| Windows NT Workstation 4.0 English Version 4.00.1381 Service Pack6 | Audio Driver | | | | X |
| | Chipset Software | | | | X |
| | Graphics Media | | | | X |
| | LAN Driver | | | | X |
| | Audio Driver | | | | X |

10. BIOS Function Test

| Test Item | Result | | |
|------------------------------------------------------------------------------|--------|------|-----|
| | Pass | Fail | N/A |
| Memory Beep Test | X | | |
| Standard CMOS Setup Test | X | | |
| Boot Sequence Test | X | | |
| Power Management Test(APM Power Management Test+ ACPI Power Management Test) | X | | |
| Power On Function Test | | | X |
| Wake Up Event Test | X | | |
| Power On after Power Failure Test | X | | |
| CMOS Backup / Clear CMOS Test | X | | |
| Boot ROM Test (RPL / PXE) | X | | |
| Supervisor / User Password Test | X | | |
| CRT / LCD / TV Function Test | X | | |
| TV Standard Function Test | X | | |
| Init Display First Function Test | X | | |
| On-Chip Serial ATA Function Test | X | | |
| SATA Mode-IDE/RAID Function Test | X | | |
| PC Health Status Monitor | X | | |
| Swap Floppy Drive & Boot up Floppy Seek Function Test | | | X |
| USB Onboard Device Function Test | X | | |
| COM Address / IRQ Test | X | | |
| LPT Address / IRQ Test | | | X |
| BIOS AWDFLASH Program Test | X | | |

11. Performance Test

11-1. Environment

| | |
|--------------------|-------------------------------------------|
| O.S. | English Windows XP Professional SP2 V2002 |
| Memory | At least 256MB |
| Resolution / Depth | 1024x768x32bit / 60Hz |
| DirectX | 9.0 |

| English Windows 2000 Professional with SP4 5.00.2195 + 1024x768x32bit / 60Hz + Direct 9.0 | | |
|-------------------------------------------------------------------------------------------|--------|--------------------|
| ZD WinBench 99 V2.0 | Result | Unit |
| Business Disk WinMark99 | 3750 | Thousand bytes/sec |
| High-End Disk WinMark99 | 13500 | Thousand bytes/sec |
| Business Graphics WinMark99 | 381 | |
| High-End Graphics WinMark99 | 1060 | |
| Final Reality V1.01—BenchMark Test (Reality Marks) | | |
| 2D Image | 37.55 | |
| 3D | 6.49 | |
| Bus transfer | 53.24 | |
| Overall | 22.82 | Reality marks |
| ZD 3D Winbench 2000 V1.1 | | |
| 3D WinMark 2000 | 126 | Frames / sec |
| ZD Multimedia Content Creation Winstone 2004 V1.0.1 | | |
| Multimedia Content Creation Winstone 2004 | 28.1 | |
| 3Dmark2001SE Pro (Demo version) | | |
| 3DMark2001SE Build 330_Benchmark mode | 5272 | |
| Business Winstone 2004 v1.0.1 | | |
| Business Winstone2004 | 16.6 | |