

# **FIC AU13 SYSTEM BOARD BOARD LEVEL COMPATIBILITY TEST REPORT**

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**Revision:** *1.00*

Supervisor	Tester

**FIC Research & Development Department**



## Revision History

Document Release	Date	Change Item	ECN
Revision 1.00	3/20/2003	Initial Release.	



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## 1. Introduction

FIC's motherboards undergo a comprehensive suite of stringent software and hardware compatibility tests to ensure that they can not only run a complete range of operating systems and software packages, but that they can also be installed with a full selection of add-on cards and peripheral devices, such as VGA, SCSI, and network adapters as well as HDDs, FDDs, CD-ROM Drives and Fax/Modems. A board is deemed to have passed the compatibility testing suite when it has met the following criteria:

- All application software available for IBM compatible products works properly.
- All common internal and external hardware available to the IBM AT-Bus and PCI compatible systems functions properly.
- All hardware and software can be installed according to the instructions provided to the user.
- All legal configurations (IRQ , I/O addresses, DMA levels ) function properly.
- All applications have been tested with and without drivers provided on the support disk.
- All operating systems have been installed and tested with each processor, with and without the most critical mode selected by setup.

## 2. Mainboard Features

**Model Name** : AU13 PCB Rev 1.2  
**Product Name** : nVidia nForce 2 (Crush 18) Based Mainboard  
**System BIOS** : Award BIOS Version TCC41  
**PCI IDE** : Internal PCI Mastre dual IDE  
**LPC** : Winbond W83627HF-AW

## 3. Mainboard CPU Supports:

AMD Processors	FSB	Status
Duron 900MHz	200	Pass
Duron 950MHz	200	Pass
Duron 1.0GHz (Morgan)	200	Pass
Duron 1.1GHz (Morgan)	200	Pass
Duron 1.2GHz (Morgan)	200	Pass
Duron 1.3GHz (Morgan)	200	Pass
Athlon 900MHz	200	Pass
Athlon 950MHz	200	Pass
Athlon 1GHz	200/266	Pass
Athlon 1.1GHz	200	Pass
Athlon 1.133GHz	266	Pass
Athlon 1.2GHz	200/266	Pass
Athlon 1.3GHz	200	Pass
Athlon 1.333GHz	266	Pass
Athlon 1.4GHz	200/266	Pass
Athlon XP 1500+ (Palomino/1333)	266	Pass
Athlon XP 1600+ (Palomino & Thoroughbred /1400)	266	Pass
Athlon XP 1700+ (Palomino & Thoroughbred /1467)	266	Pass
Athlon XP 1800+ (Palomino & Thoroughbred /1533)	266	Pass
Athlon XP 1900+ (Palomino & Thoroughbred /1600)	266	Pass
Athlon XP 2000+ (Palomino & Thoroughbred /1667)	266	Pass
Athlon XP 2100+ (Palomino & Thoroughbred /1733)	266	Pass
Athlon XP 2200+ (Thoroughbred /1800)	266	Pass
Athlon XP 2400+ (Thoroughbred /2000)	266	Pass
Athlon XP 2500+ (Barton /1830)	333	Pass
Athlon XP 2600+ (Thoroughbred /2133)	266	Pass
Athlon XP 2700+ (Thoroughbred /2166)	333	Pass
Athlon XP 2800+ (Barton /2083)	333	Pass
Athlon XP 3000+ (Barton /2167)	333	Pass

- Socket A Fan-Sink : Please refer to AMD's Web side recommendation.

## 4. System Specification for Hardware and Software Utilities

The mainboard hardware portion was configured as follows :

Item	Description
System Core Logic	nVidia nForce2 SPP + MCP-T
System Cache	128/256/512K Pipeline Burst SRAM Built-in CPU
System Memory	DDR200/266/333/400 (PC1600/2100/2700/3200) Support
	Maximum : 3GB DDR DRAM
	3 DIMM slots for 184 pins DDR SDRAM Module
System Slots	1 AGP ,6 PCI slots
Audio	Realtek ALC650 AC'97 Audio codec
LAN	3COM 3C920B-EMB (MAC) with Broadcom AC101L(PHY) 10/100 LAN Chip Onboard
Serial ATA(Optional)	Silicon Image Sil3112A Serial ATA controller Onboard
IEEE 1394 (Option)	Agere FW803(PHY) IEEE1394 Onboard
LPC (I/O)	Winbond W83627HF-AW Support Normal,EPP,ECP mode and IR interface

### 4.1 Main Functionality :

Num.	M/B function
1	ACPI Ready (support S0/S1/S3/S4/S5)
2	RTC Alarm Function
3	NOVUS II
	LogoGenie (for Win 98 SE/ME only) BIOS Easy Kit
4	Support AGP 2.0/3.0 SPEC (AGP 2X/4X/8X)
5	Ultra ATA-33/66/100/133 Enhanced IDE Interface
6	Onboard Realtek ALC650 AC'97 Audio support 2/5.1 Channel
7	Onboard 3COM 3C920B-EMB (MAC) with Broadcom AC101L(PHY)
8	Onboard Silicon Image Sil3112A Serial ATA support RAID 0/1
9	Onboard Agere FW803(PHY) IEEE 1394
10	USB 1.1/2.0 Function (Front/Rear)
11	Power Failure feature
12	Support CPU over clock Adjustment
13	Support CPU/AGP Voltage Adjustment

### 4.2 Main Software Utilities :

Num.	M/B function	Version
1	nForce Unified Driver Package	1.15
2	3COM 3C920B-EMB LAN driver	3.48.00
3	Silicon Image Sil3112A Serial ATA Base Driver	1.0.0.22
4	Award BIOS Flash ROM Utilities	8.23

## 5. Jumper Function Verification

Description	Jumper Name	Default Option
Speaker Connector	SPK	Open
Power LED (Single color)	PW_LED	Open
Power LED (Dual color)	F_PNL	Open
IDE LED Connector		Open
Reset Switch		Open
Remote Power Switch		Open
CPU FAN Connector	CPU_FAN	Open
Chipset FAN Connector	CHIP_FAN	Open
Chassis FAN Connector	SYS_FAN	Open
Clear CMOS	CLR_CMOS	1-2
IR interface	IR	Open
Front Audio Connector	F_AUDIO (Intel SPEC)	Open
5.1 Channel Audio Connector (For FIC A73 Audio bracket)	5.1_Audio	Open
Front USB Connector 4/5	USB 4/5 (Intel SPEC)	Open
CD_IN Connector (RGGL)	CD_IN	Open
AUX_IN Connector (RGGL)	AUX_IN	Open
COM2 Connector	COM2 (Option)	Open
Wake On LAN	WOL	Open
Serial ATA Connector	SATA1,SATA2	Open
IEEE 1394 connector	1394A1,1394A2	Open

## 6. Stability Test

### 6.1 CPU Over Clock Test:

System Configuration	
<b>CPU</b> : AMD Athlon XP 2200+/1800MHz	<b>FDD</b> : TEAC FD-235HG 1.44MB
<b>Cache Memory</b> : 256KB	<b>Audio</b> : Onboard Realtek ALC650
<b>Memory</b> : Elixir DDR266 256MB X 2	<b>AC'97</b> : Onboard Broadcom AC101L
<b>HDD (ATA/100)</b> : Maxtor 5T060H6 61GB	<b>LAN</b> : Onboard Broadcom AC101L
<b>VGA</b> : ELSA GLADIAC 517 SV VGA	<b>Mouse</b> : Microsoft PS/2 mouse
<b>DVD-ROM</b> : NEC DV-5800A 16X DVD	<b>PowerSupply</b> : Seventeam ST-350GL ATX 350W
<b>O.S. Environment:</b> Windows XP/Home Edition	

NO.	Over clock level		Test Result				
	FSB	CPU speed	Cold boot	Install OS	S3/S4	Winstone 2001	3D Mark2001
1	274MHz	1850MHz	Pass	Pass	Pass	65.4	3778
2	280MHz	1890MHz	Pass	Pass	Pass	67.1	3988

### 6.2 Full Loading Test: (1days)

System Configuration	
<b>CPU</b> : AMD Athlon XP 2600+(FSB266)	<b>PCI 1</b> : 3COM 3C905C-TX LAN
<b>Cache Memory</b> : 256KB	<b>PCI 2</b> : Generic Soft 56K modem
<b>Memory</b> : KingSton DDR333 256MB x 2	<b>PCI 3</b> : Tekram DC-390U2W SCSI
<b>HDD1 (ATA/100)</b> : Maxtor 5T060H6 61GB (PM)	<b>PCI 4</b> : Accton EN1207D-TX LAN
<b>HDD2 (ATA/100)</b> : Seagate ST-340810A 40GB (PS)	<b>PCI 5</b> : IBM Data Fax modem
<b>HDD3 (ATA/100)</b> : IBM DTLA-307015 15GB (PS)	<b>PCI 6</b> : Adaptec ASC-39160 SCSI
<b>DVD-ROM</b> : NEC DV-5800A 16X (SS)	<b>Audio</b> : Onboard ALC650 AC'97 Audio
<b>VGA</b> : ELSA GLADIAC 517 SV VGA	<b>LAN</b> : Onboard Broadcom AC101L
<b>FDD</b> : TEAC FD-235HG 1.44MB	<b>PowerSupply</b> : Seventeam ST-350GL ATX 350W
<b>Mouse</b> : Microsoft PS/2 mouse	<b>O.S. Environment:</b> Windows XP/Home Edition

Test Result						
BIOS detect	Install OS	All driver install	S1/S3	CC WS 2002	3D Mark 2001 SE	Stress burn in
Pass	Pass	Pass	Pass	43.7	4325	Pass

### 6.3 PCB Cold Boot Test: (12 hours)

System Configuration	
<b>CPU</b> : AMD Athlon XP 2400+(FSB266)	<b>FDD</b> : TEAC FD-235HG 1.44MB
<b>Cache Memory</b> : 256 K	<b>PowerSupply</b> : Delta DPS-350NB ATX 350W
<b>Memory</b> : Infineon DDR266 256MB x 2	
<b>VGA</b> : Leadtek A180 DDR TDH 8X	

Test Result	
Cool Boot (over 600 times)	Pass





## 7. Field (Stress) Test: Dynamic Burn-in Tests

Software Name	Duration	Result
Winstone 2001 v1.0.3	12hr.	<b>Pass</b>
Test Configurations for Win 2000	AMD Athlon XP 2100+ (FSB266) Maxtor 6L040J2 ATA/133 40GB HDD Elixir 256MB DDR266 Memory. x 2 FIC AT009LE VGA (ATI Radeon 9000) BenQ DVD1648A 16X IDE DVD-ROM	
CC Winstone 2002 v1.0.1	12hr.	<b>Pass</b>
Test Configurations for Windows XP	AMD Athlon XP 2200+ (FSB266) IBM IC35L120A ATA/100 120GB HDD PQI 256MB DDR266 Memory.(PQI) x 2 ELSA GLADIAC 721 VGA Actima AD16H 16X IDE DVD-ROM	
BCM	12hr.	<b>Pass</b>
Test Configurations for Windows ME	AMD Athlon XP 2500+ (FSB266) WD Caviar 1200BB 120GB ATA/100 HDD Micron 256MB DDR266 Memory. x 2 FIC A95P VGA (ATI Radeon 9500 pro) EPO DVD-8216 16X IDE DVD-ROM	
3D MARK 2001 SE	12hr.	<b>Pass</b>
Test Configurations for Windows XP	AMD Athlon XP 2600+ (FSB266) Maxtor 4W100H6 ATA/100 100GB HDD KingMax 256MB DDR333 Memory. x 2 Leadtek A250 LE TD AGP(Geforce4 Ti 4200) Pioneer DVD-115 16X IDE DVD-ROM	
DVD Play	12hr.	<b>Pass</b>
Test Configurations for Windows XP	AMD Athlon XP 2600+ (FSB266) Maxtor 6L080L4 ATA/133 80GB HDD Infineon 256MB DDR333 Memory. x 3 ASUS V8460 AGP Lite-On LTD-163 16X IDE DVD-ROM Onboard Realtek ALC650 AC'97 Audio DVD Title: Star War II	



## 8. Hardware Compatibility Test Suite

### 8.1 Memory

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 Ver: 2002  
**CPU** AMD Athlon XP 3000+ (FSB333/Barton)  
 AMD Athlon XP 2600+ (FSB266/Thoroughbred)  
**HDD** Maxtor 98196H8 80GB IDE ☒ ATA/100 ☐ ATA/133  
**Channel:** ☒ PM ☐ PS ☐ SM ☐ SS  
**VGA** ATI Radeon 9700 pro ☐ AGP 4X ☒ AGP 8X  
**CD-ROM** Panasonic SR-8587-B 16X DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**Sound** Realtek ALC650 AC'97 **PCI\_Slot:** ☐ On board  
**LAN** Broadcom AC101L(PHY) **PCI\_Slot:** ☐ On board  
**1394** Agere FW803(PHY) **PCI\_Slot:** ☐ On board  
**Mouse** Microsoft IntelliMouse PS/2 Mouse **COM** ☒ PS/2

The following DDR DRAM module test CC Winstone 2002/3D Mark 2001 SE/STR(S3) under Windows XP and run Memtest86 3.0 with BIOS set up default value and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

#### 8.1.1 DDR DRAM Module (DDR266/PC2100)

Vender	Chip vender	IC Part No.	Size	Side	Module No.
Apacer	Mosel	V58C2256804SAT75	256MB	S	77.10604.562
	Infineon	HYB25D128800T-7	256MB	D	77.10203.110
	Nanya	NT5DS32M8AT-7K	256MB	S	77.10603.542
Infineon	Infineon	HYB25D256800AT-7	256MB	D	HYS64D32000GU-7-A
	Infineon	HYB25D256800BT-7	512MB	D	HYS64D64020GU-7-B
Kingston	Winbond	W942508AH-75	256MB	S	KVR266X64C25/256
	Winbond	W942508AH-75	512MB	D	KVR266X64C25/512
Transend	Samsung	K4H280838C-TCB0	256MB	D	
	Mosel	V58C2128804SAT75	256MB	D	TS32MLD64V6D5
	Winbond	W942508AH-75	512MB	D	
KingMax	KingMax	KDL684T4A2A-07A	256MB	D	MPDB62D-68KX2
elixir	elixir	N2DS12880AT-75B	256MB	D	M2U25664DS8HA0G-75B
PQI	PQI	PQ6D168S75-7	256MB	D	MD6456UPS
Samsung	Samsung	K4H560838B-TCB0	512MB	D	M368L6423BT1-CB0Q0
Crucial	Micron	MT46V16M8-75A	256MB	D	CT3272Z265.18T
	Micron	MT46V16M8-75A	128MB	S	MT8VDDT1664AG-265A1
	Micron	MT46V16M8-75A	256MB	D	MT16VDDT3264AG-265A1
	Micron	MT46V32M8-75	512MB	D	MT16VDDT6464AG-265B1
TwinMOS	Hynix	HY5DU28822AT-K	256MB	D	

### 8.1.2 DDR DRAM Module (DDR333/PC2700)

Vender	Chip vender	IC Part No.	Size	Side	Module No.
KingMax	KingMax	KDL684T4A2A-05	256MB	D	MPMB62D-68KX3
	KingMax	KDL684T4AA-60	256MB	D	MPMB62D-68KX3
Transcend	Samsung	K4H560838C-TCB3	256MB	S	TS32MLD64V3F5
	Samsung	K4H560838C-TCB3	512MB	D	TS64MLD64V3F5
	Samsung	K4H280838D-TCB3	256MB	D	TS32MLD64V3D5
	Winbond	W942508BH-6	512MB	D	TS64MLD64V3F5
Seitec	Seitec	DDR32M8AT-7	256MB	S	184DR256M338
KingSton	Infineon	HYB25D256809AT-6	256MB	S	KVR333X64C25/256
	Nanya	NT5DS32M8AT-6	512MB	D	KVR333X64C25/512
Infineon	Infineon	HYB25D256800BT-6	256MB	S	HYS64D32000GU-6-B
Apacer	Samsung	K4H560838C-TCB3	512MB	D	77.10728.460
	Samsung	K4H560838D-TCB3	512MB	D	77.10728.460

### 8.1.3 DDR DRAM Module (DDR400/PC3200)

Vender	Chip vender	IC Part No.	Size	Side	Module No.
Apacer	Samsung	K4H560838D-TCC4	512MB	D	77.10736.464

## 8.2 Add-on Cards

### 8.2.1 Display Adapter Products

#### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU AMD Athlon XP 2800+ (FSB266/Thoroughbred)

HDD Maxtor 4W100H6 100GB IDE

☒ ATA/100 ☐ ATA/133

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

Total: 512 MB ☐ PC1600 ☒ PC2100

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

☐ PCI\_Slot: ☒ On board

☐ PCI\_Slot: ☒ On board

☐ COM ☒ PS/2

Memory Crucial 256MB(Micron)

CD-ROM Lite-On XJ-HD165H 16X IDE DVD

Sound Realtek ALC650 AC'97

LAN Broadcom AC101L(PHY)

Mouse Logitech MouseMan Mouse

The following AGP 4X/8X VGA cards test 3Dmark 2001 SE/AMD N-Bench 2.0/Suspend to RAM(S3) under Windows XP with their respective VGA drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

### 8.2.1.1 4X AGP Display Adapter Products

Vendor	VGA Chip	Product Description	Driver version
ATI	Rage 128 Pro	XPRT 2000 Pro	6.13.10.6218
	Radeon VE	Radeon VE	6.13.10.6218
	Radeon	Radeon	6.13.10.6218
	Radeon	All-In-Wonder Radeon	6.13.10.6218
	ATI Radeon 7500	Radeon 7500	6.13.10.6218
	ATI Radeon 8500LE	Radeon 8500LE	6.13.10.6218
	ATI Radeon 8500	Radeon 8500	6.13.10.6218
	ATI Radeon 9000 Pro	Radeon 9000 Pro	6.13.10.6218
ASUS	GeForce256	AGP-V6800	6.13.10.3140
	Riva Geforce2 GTS	AGP-V7700 Deluxe (TV out)	6.13.10.3140
	Riva Geforce3	AGP-V8200 Deluxe (TV out)	6.13.10.3140
	GeForce3 Ti200	AGP-V8200 T2 Deluxe (TV out)	6.13.10.3140
	GeForce4 MX 400	V8170 DDR(TV out)	6.13.10.3140
	GeForce4 Ti 4200	V8420 Deluxe	6.13.10.3140
	GeForce4 Ti 4400	V8440 /TD	6.13.10.3140
	GeForce4 Ti 4600	V8460 Ultra /TD	6.13.10.3140
Gainward	GeForce3 Ti200	GeForce3 PowerPack !!!	6.13.10.4109
	GeForce4 MX 420	420T	6.13.10.4109
	GeForce4 Ti 4600	4600XP	6.13.10.4109
Compro	GeForce4 MX 440	GeForce4 MX 440	6.13.10.4109
	GeForce4 Ti 4600	GeForce4 Ti 4600	6.13.10.4109
Visiontek	Riva Geforce3	Geforce3 (TV out)	6.13.10.4109
Leadtek	GeForce4 Ti 4600	A250 Ultra TD	6.13.10.3100
FIC	ATI Radeon 9000	AT009LE	6.13.10.6218
	ATI Radeon 9000 Pro	AT009	6.13.10.6218
	ATI Radeon 7000	A70L (with DVI)	6.13.10.6218
	ATI Radeon 7500	A75L	6.13.10.6218
	ATI Radeon 9000	A91L	6.13.10.6218
ELSA	Geforce2 Ultra	GLADIAC Ultra	6.13.10.4109
	Geforce2 GTS Pro	GLADIAC Pro	6.13.10.4109
	GeForce2 MX 200	GLADIAC 311	6.13.10.4109
	GeForce2 MX 400	GLADIAC 511 (TV out)	6.13.10.4109
	GeForce2 Ti	GLADIAC 516TV-Out	6.13.10.4109
	GeForce3	GLADIAC 920	6.13.10.4109
	GeForce3 Ti200	GLADIAC 721TV-Out	6.13.10.4109
	GeForce3 Ti500	GLADIAC 921 DVI	6.13.10.4109
	GeForce4 MX 440	GLADIAC 517TV-Out	6.13.10.4109
	GeForce4 Ti 4200	GLADIAC 525	6.13.10.4109
	GeForce4 Ti 4600	GLADIAC 925 ViVo	6.13.10.4109

### 8.2.1.2 8X AGP Display Adapter Products

Vendor	VGA Chip	Product Description	Driver version
FIC	ATI Radeon 9500	A95	6.13.10.6218
	ATI Radeon 9500 Pro	A95P	6.13.10.6218
	ATI Radeon 9700	A97	6.13.10.6218
	ATI Radeon 9700 Pro	A97P	6.13.10.6218
Gigabyte	ATI Radeon 9700 Pro	MAYA II R9700 Pro	6.13.10.6292
Triplex	SiS Xabre 400	Xabre PRO	6.13.10.3080
ASUS	GeForce4 MX 440-8X	V9180	6.13.10.3140
ATI	ATI Radeon 9700 Pro	Radeon 9700 Pro	6.13.10.6218

### 8.2.2 SCSI Adapter Products

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2200+ (FSB266/Thoroughbred)  
**Memory** Transcend 256MB (Mosel) **Total:** 512 MB ☐ PC1600 ☒ PC2100  
**VGA** ELSA GLADIAC 721 ☒ AGP 4X ☐ AGP 8X  
**HDD** IBM IC35L036UWD210 36GB ☐ Ultra II SCSI ☒ Ultra160 Wide  
**CD-ROM** TEAC CD-W512S 32X CD-RW ☒ Ultra SCSI ☐ Ultra Wide  
**Sound** Realtek ALC650 AC'97 ☐ PCI\_Slot: ☒ On board  
**LAN** Broadcom AC101L(PHY) ☐ PCI\_Slot: ☒ On board  
**Mouse** Logitech MouseMan Mouse ☐ COM ☒ PS/2

The following PCI SCSI cards run CC Winstone 2002/Copy large files(over 500MB) under Windows XP with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

Vendor	Model Name	Product Description	Bus I/F
Adaptec	ASC-19160PK	Adaptec Ultra 160 PCI SCSI card 19160PK	PCI
	ASC-29160N	Adaptec ASC-29160N PCI SCSI card	PCI
	ASC-29160PK	Adaptec Ultra 160 PCI SCSI card 29160PK	PCI
	ASC-39160PK	Adaptec Ultra 160 PCI SCSI card 39160PK	PCI
Tekram	DC-390U2W	Tekram DC-390U2W PCI SCSI	PCI
	DC-390U3W	Tekram DC-390U3W PCI SCSI	PCI

## 8.2.3 PCI Audio Products

### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2200+ (FSB266/Thoroughbred)  
**Memory** PQI 256MB(PQI) **Total:** 512 MB ☐ PC1600 ☒ PC2100  
**VGA** ELSA GLADIAC 721 ☒ AGP 4X ☐ AGP 8X  
**HDD** IBM IC35L120A 120GB IDE ☐ ATA/133 ☒ ATA/100  
**Channel:** ☒ PM ☐ PS ☐ SM ☐ SS  
**CD-ROM** Actima AD16H 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**Mouse** Microsoft IntelliMouse PS/2 Mouse ☐ COM ☒ PS/2

The following PCI sound cards test play WAV/MIDI/CD audio and DVD under Windows XP with their respective sound drivers installed .

Vendor	Model Name	Product Description
Creative	CT-4790	Sound Blaster PCI512 Digital
	SB-0090	Sound Blaster Audigy Platinum
Everdata	YAMAHA 754	Orpheua Digital PCI Sound Card
Terratec	Crystal CS4624-CQ	DMX Xfire Soundsystem PCI

\* Test under onboard Audio be Disabled on BIOS.

## 8.2.4 PCI Modem Products

### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2200+ (FSB266/Thoroughbred)  
**Memory** Apacer 256MB(Infineon) **Total:** 384 MB ☐ PC1600 ☒ PC2100  
**VGA** FIC AT009 (ATI Radeon 9000 Pro) ☒ AGP 4X ☐ AGP 8X  
**HDD** Maxtor 6L080J4 80GB IDE ☐ ATA/100 ☒ ATA/133  
**Channel:** ☒ PM ☐ PS ☐ SM ☐ SS  
**CD-ROM** Pioneer DVR-104 24X IDE DVD-RW **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**Sound** Realtek ALC650 AC'97 ☐ PCI\_Slot:\_\_\_ ☒ On board  
**LAN** Broadcom AC101L(PHY) ☐ PCI\_Slot:\_\_\_ ☒ On board  
**Mouse** Microsoft IntelliMouse PS/2 Mouse ☐ COM ☒ PS/2

The following PCI modem card test includes connecting to the internet,download files and test S1/S3/S4 under Windows XP with their respective modem drivers installed .

Vendor	Product Description	Bus I/F
Askey	1456VQH75	PCI

### 8.3 Storage

#### 8.3.1 SCSI Peripheral Products

##### Test Configuration:

OS Ver ☒ Win XP Ver: 2002  
 CPU AMD Athlon XP 2200+ (FSB266/Thoroughbred)  
 Memory Micron 128MB Total: 384 MB ☐ PC1600 ☒ PC2100  
 VGA ELSA GLADIAC 721 ☒ AGP 4X ☐ AGP 8X  
 SCSI Adaptec ASC-39160PK Ultra160 ☐ ISA ☒ PCI Slot: 3.  
 Sound Realtek ALC650 AC'97 ☐ PCI Slot: ☒ On board  
 LAN Broadcom AC101L(PHY) ☐ PCI Slot: ☒ On board  
 Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following SCSI devices test Copy large files(over 500MB)/CC Winstone 2002 under Windows XP with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

ITEM	Vendor	Model Name	Product Description
Hard Disk	IBM	DDRS-39130	Ultra2 SCSI HDD 9.1GB
		IC35L018UWD210	Ultra160 18GB
		DMVS COMP IEC-950	Ultra2 Wide 36GB
		IC35L036UWD210	Ultra160 36GB
	Seagate	ST-39173W	Barracuda 9LP Ultra Wide 9.1GB
		ST-39236LW	Barracuda Ultra160 Wide 9GB
		ST-318437LW	Barracuda Ultra160 Wide 18GB
		ST-39204LW	Cheetah Ultra160 Wide 9GB
		ST-318406LW	Cheetah Ultra160 Wide 18GB
		ST318452LW	Cheetah Ultra160 Wide 18GB
		ST336706LW	Cheetah Ultra160 Wide 36GB
		ST336752LW	Cheetah Ultra160 Wide 36GB
CD-ROM	Plextor	PX-40Tsi	Ultra SCSI CD-ROM 40X
	Toshiba	XM-6210B	Ultra SCSI CD-ROM 32X
	Panasonic	CR-508	SCSI-II CD-ROM 24X
		LF-D291	SCSI-II 4.7GB DVD-RAM
	Afreedy	CD-2050S	Ultra SCSI CD-ROM 50X
	TEAC	CDR 56S	(24R6W) CD-RW 24X
		CD-W512S-B82	(32R12W10RW) CD-RW 32X
	Nichimen	CDR-BP3N	(32R12W10RW) CD-RW 32X
MO	YAMAHA	CRW2100S	(40R16W10RW) CD-RW 40X
	Konica	GF-640	Super MO II External MO
ZIP	Fujitsu	MDG3064SS	DYNA MO 640 SF
	Iomage		SCSI ZIP 250 (External)

#### 8.3.2 IDE Fixed Disk Drive Products

##### Test Configuration:





**OS Ver** ☒ Win XP + SP1 Ver: 2002  
**CPU** AMD Athlon XP 2100+ (FSB266/Thoroughbred)  
**Memory** KingMax 256MB **Total: 512 MB** ☐ PC2100 ☒ PC2700  
**VGA** ASUS V8440 AGP ☒ AGP 4X ☐ AGP 8X  
**CD-ROM** ASUS DVD-E616 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**Sound** Realtek ALC650 AC'97 ☐ PCI\_Slot: ☒ On board  
**LAN** Broadcom AC101L(PHY) ☐ PCI\_Slot: ☒ On board  
**Mouse** Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following IDE devices test and CC WinStone 2002/Copy large files(over 500MB) under Windows XP with OS default drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

**IDE ATA/100**

Vendor	Model Name	Capacity
IBM	DTLA-307015	15.3GB
	DTLA-305020	20.5GB
	DTLA-307020	20.5GB
	DTLA-307030	30.7GB
	IC35L040AVER07-0	40GB
	DTLA-307045	46.1GB
	DTLA-307060	61.4GB
	IC35L060A	61.5GB
	DTLA-307075	76.8GB
	IC35L080A	82.3GB
	IC35L120A	120GB
Maxtor	51536H2	15.3GB
	52049H4	20.4GB
	53073H6	30.6GB
	34098H4	40.9GB
	54098H8	40.9GB
	4K040H2	40GB
	5T060H6	61GB
	98196H8	80GB
	4K080H4	80GB
	4W100H6	100GB
Seagate	ST320414A	20GB
	ST330631A	30.6GB
	ST340016A	40GB
	ST340810A	40GB
	ST340824A	40GB
	ST380020A	80GB
	ST380021A	80GB
WD	Caviar WD300BB	30GB
	Caviar WD400BB	40GB
	Caviar WD600BB	60GB
	Caviar WD800BB	80GB
	Caviar WD800JB	80GB
	Caviar WD1000BB	100GB
	Caviar WD1200BB	120GB
	Caviar WD1200JB	120GB



	Caviar WD2000JB	200GB
Samsung	SV3063H	30.6GB
	SV4084H	40.8GB

**IDE ATA/133**

Vendor	Model Name	Capacity
Maxtor	6L040J2	40GB
	6L040L2	40GB
	6L060J3	60GB
	6L060L3	60GB
	6L080J4	80GB
	6L080L4	80GB
	4G160JB	160GB

### 8.3.3 ATAPI CD-ROM /DVD-ROM Device Product

#### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
 CPU AMD Athlon XP 2100+ (FSB266/Thoroughbred)  
 Memory PQI 256MB (PQI) Total: 512 MB ☒ PC1600 ☒ PC2100  
 VGA FIC AT009LE (ATI Radeon 9000) ☒ AGP 4X ☒ AGP 8X  
 HDD WD Caviar 2000JB 200GB IDE ☒ ATA/100 ☒ ATA/133  
 Channel: ☒ PM ☒ PS ☒ SM ☒ SS  
 Sound Realtek ALC650 AC'97 ☒ PCI Slot: ☒ On board  
 LAN Broadcom AC101L(PHY) ☒ PCI Slot: ☒ On board  
 Mouse Logitech TrackmanMarble Mouse ☒ COM ☒ PS/2

The following IDE devices test play VCD or DVD/Copy large files(over 500MB) under windows XP with OS default drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

#### 8.3.3.1 ATAPI CD-ROM:

Vendor	Model Name	Product Description
Genuine	GC-952B	ATAPI CD-ROM 52X UDMA33
ASUS	CD-S500/A	ATAPI CD-ROM 50X UDMA33
	CD-S520/A	ATAPI CD-ROM 52X UDMA33
4KUS	CCD-52X6D	ATAPI CD-ROM 52X UDMA33
LITE-ON	LTN-403L	ATAPI CD-ROM 40X UDMA33
	LTN-485S	ATAPI CD-ROM 48X UDMA33
Mitsumi	CRMC-FX4820T	ATAPI CD-ROM 48X Mode4
TEAC	CD-540E	ATAPI CD-ROM 40X Mode4
AOpen	CD-952E/AKH	ATAPI CD-ROM 52X UDMA33
SONY	CDU4811	ATAPI CD-ROM 48X UDMA33
YAMAHA	Audio Extractor	ATAPI CD-ROM 52X Mode4

#### 8.3.3.2 ATAPI DVD-ROM:

Vendor	Model Name	Product Description
ASUS	DVD-E616	ATAPI DVD-ROM 16X (UDMA100)
SONY	DDU1621	ATAPI DVD-ROM 16X
Pioneer	DVD-116/2	ATAPI DVD-ROM 16X (UDMA66)
	DVD-117RD	ATAPI DVD-ROM 16X (UDMA66)
AOpen	DVD1648	ATAPI DVD-ROM 16X (UDMA66)
BenQ	DVD1648A	ATAPI DVD-ROM 16X Mode4
4KUS	DVD-16X5H	ATAPI DVD-ROM 16X (UDMA66)
NEC	DV-5700B	ATAPI DVD-ROM 12X (UDMA33)
	DV-5800A	ATAPI DVD-ROM 16X (UDMA33)
LG	DRD-8120B	ATAPI DVD-ROM 12X
Acer	DVP1640A	ATAPI DVD-ROM 16X Mode4
LITE-ON	LTD-163	ATAPI DVD-ROM 16X Mode4
EPO	DVD-8216	ATAPI DVD-ROM 16X UDMA33
Creative	DVD1242E	ATAPI DVD-ROM 12X Mode4

### 8.3.4 IEEE 1394 Products

#### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
 CPU AMD Athlon XP 2200+ (FSB266/Thoroughbred)

<b>Memory</b>	PQI 256MB (PQI)	<b>Total:</b> 512 MB	<input checked="" type="checkbox"/> PC1600 <input checked="" type="checkbox"/> PC2100
<b>HDD</b>	WD Caviar 600BB 60GB IDE	<input checked="" type="checkbox"/> ATA/133	<input checked="" type="checkbox"/> ATA/100
		<b>Channel:</b> <input checked="" type="checkbox"/> PM <input checked="" type="checkbox"/> PS <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SS	
<b>CD-ROM</b>	EPO DVD-8216 16X IDE DVD	<b>Channel:</b> <input checked="" type="checkbox"/> PM <input checked="" type="checkbox"/> PS <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SS	
<b>VGA</b>	FIC A97 (ATI Radeon 9700)	<input checked="" type="checkbox"/> AGP 4X	<input checked="" type="checkbox"/> AGP 8X
<b>Sound</b>	Realtek ALC650 AC'97	<input checked="" type="checkbox"/> PCI_Slot:___	<input checked="" type="checkbox"/> On board
<b>LAN</b>	Broadcom AC101L(PHY)	<input checked="" type="checkbox"/> PCI_Slot:___	<input checked="" type="checkbox"/> On board
<b>Mouse</b>	Logitech TrackMan Marble Mouse	<input checked="" type="checkbox"/> COM	<input checked="" type="checkbox"/> PS/2

The following IEEE 1394 devices be tested under Windows XP with Win XP default driver installed.

Type	Vendor	Description	Model
HDD		1394 Hardisk Box (with IBM DARA-206000 6GB HDD)	FireWire-IDE
	Maxtor	1394 External Storage 80GB	FWRA080LE001
Camera	SONY	1394 Color Digital Camera	DFW-VL500
Repeater	Aplux	Amazonplus 400	
CD-RW	SONY	Spresa i.LINK S400 CD-RW	CRX145S/XS

### 8.3.5 Serial ATA Products

#### Test Configuration:

<b>OS Ver</b>	<input checked="" type="checkbox"/> Win XP + SP1	<b>Ver:</b> 2002	
<b>CPU</b>	AMD Athlon XP 2600+ (FSB266/Thoroughbred)		
<b>Memory</b>	PQI 256MB (PQI)	<b>Total:</b> 512 MB	<input checked="" type="checkbox"/> PC1600 <input checked="" type="checkbox"/> PC2100
<b>HDD</b>	WD Caviar 600BB 60GB IDE	<input checked="" type="checkbox"/> ATA/133	<input checked="" type="checkbox"/> ATA/100
		<b>Channel:</b> <input checked="" type="checkbox"/> PM <input checked="" type="checkbox"/> PS <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SS	
<b>CD-ROM</b>	EPO DVD-8216 16X IDE DVD	<b>Channel:</b> <input checked="" type="checkbox"/> PM <input checked="" type="checkbox"/> PS <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SS	
<b>VGA</b>	ASUS V8440 AGP	<input checked="" type="checkbox"/> AGP 4X	<input checked="" type="checkbox"/> AGP 8X
<b>Sound</b>	Realtek ALC650 AC'97	<input checked="" type="checkbox"/> PCI_Slot:___	<input checked="" type="checkbox"/> On board
<b>LAN</b>	Broadcom AC101L(PHY)	<input checked="" type="checkbox"/> PCI_Slot:___	<input checked="" type="checkbox"/> On board
<b>Mouse</b>	Logitech TrackMan Marble Mouse	<input checked="" type="checkbox"/> COM	<input checked="" type="checkbox"/> PS/2

The following IEEE 1394 devices be tested under Windows XP with Win XP default driver installed.

Vendor	Description	Capacity
Seagate	ST3120023AS	120GB

\* The detail test Methodology follows Chapter 10.1.

## 8.4 Peripherals

### 8.4.1 Parallel/Serial Port Products (Including IR)

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2000+ (FSB266/Thoroughbred)  
**Memory** Micron 256MB(Micron) **Total:** 512 MB ☐ PC1600 ☒ PC2100  
**HDD** Seagate ST-380020A 80GB IDE ☒ ATA/100 ☐ ATA/133  
**Channel:** ☒ PM ☐ PS ☐ SM ☐ SS  
**CD-ROM** Pioneer DVD-116/2 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**VGA** Compro Geforce4 MX440 ☒ AGP 4X ☐ AGP 8X  
**Sound** Realtek ALC650 AC'97 ☐ PCI\_Slot: ☒ On board  
**LAN** Broadcom AC101L(PHY) ☐ PCI\_Slot: ☒ On board  
**Mouse** Logitech TrackMan Marble Mouse ☐ COM ☒ PS/2

The following Parallel/Serial devices be tested under Windows XP with OS default drivers installed.

Vendor	Product Description	Bus I/F
Image	ZIP 250	LPT
HP	LaserJet 6P	LPT/IR
	DeskJet 840c	LPT
	DeskJet 990cxi	LPT
	DeskJet 1220c	LPT
EPSON	Stylus Color 740	LPT
	Stylus Color 900	LPT
WACOM	Intuos Graphics Tablet	COM
ELSA	MicroLink 56K Internet modem	COM
Logitech	WingMan Formula Force joystick	COM
Kodak	DC210 InfraRed/Serial port Digital camera	COM/IR
ACTisys	ACT-IR210L Receiver/Transceiver	IR

## 8.4.2 PS/2 Keyboard/Mouse Products

### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
 CPU AMD Athlon XP 2500+ (FSB266/Thoroughbred)  
 Memory Infineon 256MB Total: 512 MB ☐ PC1600 ☒ PC2100  
 HDD IBM IC35L040 40GB IDE ☐ ATA/66 ☒ ATA/100  
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS  
 Channel: ☐ PM ☐ PS ☒ SM ☐ SS  
 CD-ROM EPO DVD-8216 16X IDE DVD ☐ AGP 4X ☒ AGP 8X  
 VGA FIC A97P (ATI Radeon 9700 Pro)  
 Sound Realtek ALC650 AC'97 ☐ PCI\_Slot: \_\_ ☒ On board  
 LAN Broadcom AC101L(PHY) ☐ PCI\_Slot: \_\_ ☒ On board

The following PS/2 Keyboard and Mouse devices test Office 2000 and Game under Windows XP with Mouse drivers installed.

### Keyboard

Vendor	Product Description
Logitech	Cordless Keyboard/Desktop
	Internet Keyboard
Microsoft	Natural Keyboard
Genius	PR-Multimedia 98 (KWD-910)
GNT	FOLD-2000 PS/2 Keyboard
LEO	KB-9908

### Mouse

Vendor	Product Description
Microsoft	Optical U/P Mouse (X05-48976)
	Optical U/P Mouse (X06-25122)
	Explorer 3.0 U/P Mouse (X06-25120)
	TrackBall Explorer 1.0 U/P Mouse (X05-87473)
Logitech	MouseMan (M-CV46)
	MouseMan Dual Optical (M-BL63B)
eMachines	M-S34 (Logitech)
Samsung	Cyber Beetle Mouse (Optical)
Genius	NetScroll Optical
	NetScroll+ Eye Optical
	NetScroll+ NB Eye Optical
LEO	LEO-WIN

### 8.4.3 USB Device Products

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2100+ (FSB266/Thoroughbred)  
**Memory** Transcend 512MB(Winbond) **Total:** 1000 MB ☒ PC1600 ☒ PC2100  
**HDD** Maxtor 4K040H2 40GB IDE ☒ ATA/100 ☒ ATA/133  
**Channel:** ☒ PM ☒ PS ☒ SM ☒ SS  
**CD-ROM** Pioneer DVD-116/2 16X IDE DVD **Channel:** ☒ PM ☒ PS ☒ SM ☒ SS  
**VGA** Gainward 4600XP ☒ AGP 4X ☒ AGP 8X  
**Sound** Realtek ALC650 AC'97 ☒ PCI\_Slot: ☒ On board  
**LAN** Broadcom AC101L(PHY) ☒ PCI\_Slot: ☒ On board  
**Mouse** Logitech TrackMan Marble Mouse ☒ COM ☒ PS/2

The following USB devices be tested under Windows XP with Win XP default driver installed.

#### 8.4.3.1 USB 1.1 Devices

Type	Vendor	Description
Mouse	Logitech	USB Wheel Mouse (Optical) (M-BD58)
	Microsoft	IM Optical USB Mouse (X05-48976)
		IM Optical USB Mouse (X06-25122)
		TrackBall Explorer 1.0 USB Mouse (X05-87473)
	Genius	NetScroll+ NB Eye Optical
HUB	Belkin	Express Bus F5U001
Keyboard	BTC	8113W
	Microsoft	Natural Keyboard Pro
Printer	HP	DeskJet 840c
		DeskJet 990cxi
		DeskJet 1220c
	EPSON	Stylus Color 900
Scanner	EPSON	GT-7000
MO	OLYMPUS	Turbo MO MINI (MOS3390S)
ZIP	iomega	ZIP 250
Flash H_Disk	Transcend	JetFlash 128MB
		JetFlash 512MB
GamePad	Logitech	WingMan Extreme USB GamePad
Joystick	Microsoft	SideWinder Precision 2

#### 8.4.3.2 USB 2.0 Devices

Type	Vendor	Description
HUB	Hung	USB 2.0 Hi-Speed Hub
HDD	Fujitsu	DYNA DISQ 20GB (MMA2200VB)
CD-R/RW	Plextor	PX-W2410TU (40R24W10RW)
	YAMAHA	CRW-F1ux (44R44W24RW)
Scanner	EPSON	Perfection 2450 Photo
MO	Fujitsu	DYNA MO 1300U2 (MDG3130UB)
Printer	HP	DeskJet 3820
ZIP	iomega	ZIP 750

### 8.5 Power Supply Products

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 **Ver:** 2002  
**CPU** AMD Athlon XP 2400+ (FSB266/Thoroughbred)

<b>Memory</b>	Infineon 256MB	<b>Total:</b> 512 MB	<input type="checkbox"/> PC1600 <input checked="" type="checkbox"/> PC2100
<b>HDD</b>	WD Caviar 1200BB 120GB IDE	<input checked="" type="checkbox"/> ATA/100	<input type="checkbox"/> ATA/133
<b>CD-ROM</b>	EPO DVD-8216 16X IDE DVD	<b>Channel:</b> <input checked="" type="checkbox"/> PM <input type="checkbox"/> PS <input type="checkbox"/> SM <input type="checkbox"/> SS	
<b>VGA</b>	FIC A95P (ATI Radeon 9500 Pro)	<b>Channel:</b> <input type="checkbox"/> PM <input type="checkbox"/> PS <input checked="" type="checkbox"/> SM <input type="checkbox"/> SS	
<b>Sound</b>	Realtek ALC650 AC'97	<input type="checkbox"/> AGP 4X <input checked="" type="checkbox"/> AGP 8X	
<b>LAN</b>	Broadcom AC101L(PHY)	<input type="checkbox"/> PCI_Slot:___ <input checked="" type="checkbox"/> On board	
<b>Mouse</b>	Logitech TrackMan Marble Mouse	<input type="checkbox"/> PCI_Slot:___ <input checked="" type="checkbox"/> On board	
		<input type="checkbox"/> COM <input checked="" type="checkbox"/> PS/2	

The following Power supply devices test Cool/Warm boot, restart and power management(S1)/ Suspend To RAM(S3) under Windows XP with over 5 times.

Vendor	Product Description	Power	AC Input Voltage	Type
DELTA	DPS-300KB-1	300W	110/220	ATX
	DPS-350NB	350W	110/220	ATX
Enlight	HPC-340-101	340W	110/220	ATX
Seasonic	SS-250FS	250W	110/220	ATX
	SS-300FS	300W	110/220	ATX
ICute	P4-3000TC	300W	110/220	ATX
	AL-3000P4	300W	110/220	ATX
	ICUTE-3200	320W	110/220	ATX
Good Vision	XP-375X	375W	110/220	ATX
Green An	ATX-1125BTA	300W	110/220	ATX
	ENP-0735	350W	110/220	ATX
ENERMAX	EG265P-VE	250W	110/220	ATX
	EG301P-VE	300W	110/220	ATX
	EG365P-VE	350W	110/220	ATX
SD	SD-300W-12V	300W	110/220	ATX
HEC	HEC-250VR-T	250W	110/220	ATX
	HEC-300VD-T (SLN)	300W	110/220	ATX
	HEC-350LD-T	350W	110/220	ATX
Century Star	ATX 300W	300W	110/220	ATX
	ATX 350W	350W	110/220	ATX
Golden Field	ATX-320WB&P4	300W	220	ATX
HOPELY	ATX-250SE-P4	250W	220	ATX
	ATX-300SE-P4	300W	220	ATX
	ATX-300S	300W	220	ATX
STR	SPS-300W Rev:03	300W	220	ATX



## 9. Software Compatibility Test Suite

### 9.1 Base Operating System

#### 9.1.1 Microsoft Windows 98 SE:

##### Test Configuration:

**CPU** AMD Athlon XP 2000+ (FSB266/Thoroughbred)  
**Memory** KingMax 256MB(KingMax) **Total:** 512 MB ☐ PC2100 ☒ PC2700  
**HDD** WD Caviar 600BB 60GB IDE ☐ ATA/133 ☒ ATA/100  
**VGA** FIC A91L (ATI Radeon 9000) **Channel:** ☒ PM ☐ PS ☐ SM ☐ SS  
☒ AGP 4X ☐ AGP 8X  
**CD-ROM** NEC DV-5800A 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**Sound** Realtek ALC650 AC'97 **☐ PCI\_Slot:** \_\_. ☒ On board  
**LAN** Broadcom AC101L(PHY) **☐ PCI\_Slot:** \_\_. ☒ On board  
**Mouse** Microsoft IntelliMouse Mouse **☐ COM** ☒ PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
Format FDD	PASS	
FIC 1stUtilities all M/B drivers Install & Test	PASS	
FIC CD-Plus all Application Install & Test	PASS	
CoreTest 92 (Transfer Rate test)	PASS	
Large file Copy from DVD-ROM (Over 500MB)	PASS	
Device Management check (No Caution)	PASS	
Auto Shutdown (system power off)	PASS	
DVD play (name: <i>Star War II</i> )	PASS	
Power Management	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To DRAM)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
System Shutdown	Power button (Setting from PM)	PASS
	Start → Shut down item	PASS
WinStone 2001 v1.0.3	PASS	
CC WinStone 2002 v1.0.1	PASS	
3D Mark 2001 SE	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows 98 SE	4.10.2222A	English	Microsoft	Pass

### 9.1.2 Microsoft Windows ME:

#### Test Configuration:

**CPU** AMD Athlon XP 2600+ (FSB266/Thoroughbred)  
**Memory** Infineon 256MB(Infineon) **Total: 512 MB** ☐PC2100 ☒PC2700  
**HDD** IBM IC35L080A 82.3GB IDE ☐ATA/133 ☒ATA/100  
**VGA** FIC AT009 (ATI Radeon 9000 Pro) **Channel:** ☒PM ☐PS ☐SM ☐SS  
**CD-ROM** SONY DDU1621 16X IDE DVD ☒AGP 4X ☐AGP 8X  
**Sound** Realtek ALC650 AC'97 **Channel:** ☐PM ☐PS ☒SM ☐SS  
**LAN** Broadcom AC101L(PHY) ☐PCI\_Slot:\_. ☒On board  
**Mouse** Microsoft IntelliMouse Mouse ☐PCI\_Slot:\_. ☒On board  
☐COM ☒PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
FIC 1stUtilities all M/B drivers Install & Test	PASS	
FIC CD-Plus all Application Install & Test	PASS	
Device Management check (No Caution)	PASS	
Large file Copy from DVD-ROM (Over 500MB)	PASS	
Defrag test	PASS	
Power Management (Stand By function)	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
Hibernate (Suspend To Disk)	Power button	PASS
	Start → Hibernate item	PASS
	Time Out	PASS
System Shutdown	Power button	PASS
	Start → Shut down item	PASS
WinStone 2001 v1.0.3	PASS	
CC WinStone 2002 v1.0.1	PASS	
3D Mark 2001 SE	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows ME	4.90.3000	English	Microsoft	Pass

### 9.1.3 Microsoft Windows XP/Home Edition + Service Pack 1:

#### Test Configuration:

**CPU** AMD Athlon XP 2100+ (FSB266/Thoroughbred)  
**Memory** Apacer 512MB(Samsung) **Total: 1000 MB** ☐PC2100 ☒PC2700  
**HDD** Maxtor 6L060J3 60GB IDE ☒ATA/133 ☐ATA/100  
**VGA** ELSA GLADIAC 925 ViVo **Channel:** ☒PM ☐PS ☐SM ☐SS  
**CD-ROM** Pioneer DVD-116 16X IDE DVD ☒AGP 4X ☐AGP 8X  
**Sound** Realtek ALC650 AC'97 **Channel:** ☐PM ☐PS ☒SM ☐SS  
**LAN** Broadcom AC101L(PHY) ☐PCI\_Slot:\_. ☒On board  
**Mouse** Microsoft IntelliMouse Mouse ☐PCI\_Slot:\_. ☒On board  
☐COM ☒PS/2

Test Item	Result	Remark
Install Win XP with NTFS (boot from CD )	PASS	
FIC 1stUtilities all M/B drivers Install & Test	PASS	
FIC CD-Plus all Application Install & Test	PASS	
Device Management check (No Caution)	PASS	
Large file Copy from DVD-ROM (Over 500MB)	PASS	
DVD play (name: <i>Deep Blue Sea</i> )	PASS	
Power Management (Stand By function)	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
Hibernate (Suspend To Disk)	Power button	PASS
	Start → Hibernate item	PASS
	Time Out	PASS
	Power button	PASS
System Shutdown	Start → Shut down item	PASS
	Power button	PASS
WinStone 2001 v1.0.3	PASS	
CC WinStone 2002 v1.0.1	PASS	
3D Mark 2001 SE	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows XP / Home Edition	2002	English	Microsoft	Pass
Windows XP Service Pack	1.0	English	Microsoft	Pass

### 9.1.4 Microsoft Windows 2000 + Service Pack 3:

#### Test Configuration:

**CPU** AMD Athlon XP 2100+ (FSB266/Thoroughbred)  
**Memory** Transcend 512MB(Winbond) **Total: 1000 MB** ☐PC2100 ☒PC2700  
**HDD** WD Caviar 1200BB 120GB IDE ☐ATA/133 ☒ATA/100  
**Channel:** ☒PM ☐PS ☐SM ☐SS  
**VGA** ASUS V8440 ☒AGP 4X ☐AGP 8X  
**CD-ROM** Panasonic SR-8587-B 16X IDE DVD **Channel:** ☐PM ☐PS ☒SM ☐SS  
**Sound** Realtek ALC650 AC'97 ☐PCI\_Slot:\_\_\_ ☒On board  
**LAN** Broadcom AC101L(PHY) ☐PCI\_Slot:\_\_\_ ☒On board  
**Mouse** Microsoft IntelliMouse Mouse ☐COM ☒PS/2

Test	Item	Result	Remark
Install Win 2000 with NTFS (boot from CD )		PASS	
Format FDD		PASS	
FIC 1stUtilities all M/B drivers Install & Test		PASS	
FIC CD-Plus all Application Install & Test		PASS	
Device Management check (No Caution)		PASS	
Large file Copy from DVD-ROM (Over 500MB)		PASS	
Power Management (Stand By function)	Power button	PASS	
	Keyboard Sleep Key	PASS	
	Start → Stand By item	PASS	
	Time Out	PASS	
S3 (Suspend To Memory)	Power button	PASS	
	Keyboard Sleep Key (98keyboard)	PASS	
	Start → Stand By item	PASS	
	Time Out	PASS	
Hibernate (Suspend To Disk)	Power button	PASS	
	Start → Hibernate item	PASS	
	Time Out	PASS	
System Shutdown	Power button	PASS	
	Start → Shut down item	PASS	
WinStone 2001 v1.0.3		PASS	
CC WinStone 2002 v1.0.1		PASS	
3D Mark 2001 SE		PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
MS Windows 2000 Professional	5.00.2195	English	Microsoft	Pass
Windows 2000 Service Pack	3.0	English	Microsoft	Pass



## 10. Onboard Function Test Suite

### 10.1 Serial ATA:

#### 10.1.1 RAID 0:

##### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
CPU AMD Athlon XP 2600+ (FSB266/Thoroughbred)  
Memory KingSton 512MB(Nanya) Total: 1000 MB ☐ PC2100 ☒ PC2700  
HDD1 Seagate ST-3120023AS 120GB ☒ S\_ATA1 ☐ S\_ATA2  
HDD2 Seagate ST-3120023AS 120GB ☐ S\_ATA1 ☒ S\_ATA2  
CD-ROM AOpen DVD1648 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS  
VGA ASUS V8440 AGP ☒ AGP 4X ☐ AGP 8X  
Sound Realtek ALC650 AC'97 ☐ PCI\_Slot: ☒ On board  
LAN Broadcom AC101L(PHY) ☐ PCI\_Slot: ☒ On board  
Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test	Item	Result	Remark
Operation system install (NTFS)		PASS	
ZD WinBench 99 V2.0	Business Disk WinMark	9180 MB/sec	
	High-End Disk WinMark	25600 MB/sec	
CC WinStone 2002 v1.0.1		31.8	
3D Mark 2001 SE		11428	
Large file Copy from DVD-ROM (Over 500MB)		PASS	
RAID 0 Function Test		PASS	

### 10.1.2 RAID 1:

#### Test Configuration:

**OS Ver** ☒ Win XP + SP1 Ver: 2002  
**CPU** AMD Athlon XP 2600+ (FSB266/Thoroughbred)  
**Memory** KingSton 512MB(Nanya) **Total: 1000 MB** ☐ PC2100 ☒ PC2700  
**HDD1** Seagate ST-3120023AS 120GB ☒ S\_ATA1 ☐ S\_ATA2  
**HDD2** Seagate ST-3120023AS 120GB ☐ S\_ATA1 ☒ S\_ATA2  
**CD-ROM** AOpen DVD1648 16X IDE DVD **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS  
**VGA** ASUS V8440 AGP ☒ AGP 4X ☐ AGP 8X  
**Sound** Realtek ALC650 AC'97 ☐ PCI\_Slot: ☒ On board  
**LAN** Broadcom AC101L(PHY) ☐ PCI\_Slot: ☒ On board  
**Mouse** Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

Test Item	Result	Remark
Operation system install (NTFS)	PASS	
ZD WinBench 99 V2.0	Business Disk WinMark	7830 MB/sec
	High-End Disk WinMark	21400 MB/sec
CC WinStone 2002 v1.0.1	32.1	
3D Mark 2001 SE	11392	
Large file Copy from DVD-ROM (Over 500MB)	PASS	
RAID 1 Function Test	PASS	

## 10.2 Realtek ALC650 AC'97 Codec Audio:

### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
☒ Win 2000 + SP3 Ver: 5.00.2195  
CPU AMD Athlon XP 2200+ (FSB266/Thoroughbred)  
Memory Transcend 512MB(Samsung) Total: 1000 MB ☐ PC2100 ☒ PC2700  
HDD Maxtor 5T060H6 60GB IDE ☐ ATA/66 ☒ ATA/100  
Channel: ☒ PM ☐ PS ☐ SM ☐ SS  
CD-ROM NEC DV-5800A 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS  
VGA ELSA GLADIAC 721 ☒ AGP 4X ☐ AGP 8X  
LAN Broadcom AC101L(PHY) ☐ PCI Slot:     ☒ On board  
Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

Test Item		Result	
		Win XP	Win 2000
Audio driver install		PASS	PASS
Audio play	WAV/MP3 files	PASS	PASS
	MIDI files	PASS	PASS
	Music CD	PASS	PASS
Sound adjust volume control		PASS	PASS
CD-IN connector		PASS	PASS
Rear Panel	Lin-Out	PASS	PASS
	Lin-In	PASS	PASS
	MIC	PASS	PASS
Record	CD-IN	PASS	PASS
	Lin-In	PASS	PASS
	MIC	PASS	PASS
ACPI Function	S1	PASS	PASS
	S3(STR)	PASS	PASS
	S4(STD) Hibernate	PASS	PASS
A73 Bracket board (5.1 CH output)	Center/BASS	PASS	PASS
	Rear	PASS	PASS
	SPDIF Output	PASS	PASS
VCD play	2 CH audio output	PASS	PASS
	5.1 CH audio output	PASS	PASS
DVD play	2 CH audio output	PASS	PASS
	5.1 CH audio output	PASS	PASS
Audio Quality (2CH/5.1 CH)		PASS	PASS

\* ALC650 5.1CH audio used FIC A73 bracket to test.

## 11. Benchmark

### Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002  
 CPU AMD Athlon XP 3000+ (FSB333/Barton)  
 Memory Transcend 256MB(Samsung) Total: 512 MB ☐ PC2100 ☒ PC2700  
 HDD Maxtor 6L040L2 40GB IDE ☒ ATA/133 ☐ ATA/100  
 Channel: ☒ PM ☐ PS ☐ SM ☐ SS  
 VGA ELSA GLADIAC 925 ViVo ☒ AGP 4X ☐ AGP 8X  
 CD-ROM ASUS DVD-E616 16X IDE DVD Channel: ☐ PM ☐ PS ☒ SM ☐ SS  
 Sound Realtek ALC650 AC'97 ☐ PCI\_Slot:     ☒ On board  
 LAN Broadcom AC101L(PHY) ☐ PCI\_Slot:     ☒ On board  
 Mouse Microsoft IntelliMouse Mouse ☐ COM ☒ PS/2

The Benchmark test under Windows XP with 1stUtilities drivers installed and set to the follow condition 1024 x 768 x 32bit colors, resolution refresh rate of 85Hz, small font.

Benchmarks	Weighted Suite	Result
Winstone 2001 V1.0.3	Business Winstone 2001 scores	<b>81.4</b>
CC Winstone 2002 V1.0.1	CC Winstone 2002 scores	<b>44.2</b>
3D Mark 2001 SE	3D MARK	<b>13314</b>
PCMark 2002	CPU Score	<b>6618</b>
	Memory Score	<b>5137</b>
	HDD Score	<b>878</b>

\* The Benchmark test under BIOS set to default.





**Test Engineer:**

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OS: **Kai Dane**

I/O : **Leon Liang**

Audio: **Lion Liou**

CPU: **Steven Huang**

VGA: **Jimmy Kao**

Memory: **MengFang**

IDE Devices: **Frando Tzeng**

Power: **RIC Lu**

Check by: **Lion Liou**

Ownership: **Benson Shen**