

FIC FB11 PCI/AGP SYSTEM BOARD BOARD LEVEL COMPATIBILITY TEST REPORT

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Product Version: *V 1.3*
BIOS Version: *IAA45*
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Revision: *1.07*

Supervisor	Tester

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Revision History

Document Release	Date	Change Item	ECN
Revision 1.01	5/12/2000	Add support AGP VGA List: Gigabyte GA-660 Plus AGP ATI Rage Fury Pro AGP ASUS AGP-6800 AGP Leadtek Winfast Geforce 2 GTS AGP ELSA ERAZOR III LT-16 AGP Add support ATA/66 HDD List: Maxtor 54098U8 40GB ATA/66 HDD Quantum Fireball Plus LM 20GB ATA/66 HDD Quantum Fireball LM 30GB ATA/66 HDD Modify SDRAM list and add support KingStone DRAM.	
Revision 1.02	7/07/2000	BIOS update version to IAA43 Add support Intel Celeron 667/700MHz CPU Add support Cyrix III(Samuel) 533/550/600MHz CPU	M99C03-E-016
Revision 1.03	7/25/2000	Add support PROMISE ATA/100 PCI card Add support IBM DTLA series ATA/100 IDE HDD	
Revision 1.04	9/15/2000	Add support Windows ME (Millennium Edition)	
Revision 1.05	11/07/2000	Add support Intel Celeron 766MHz CPU	
Revision 1.06	2/09/2001	BIOS update version to IAA45 Add support Intel Celeron 800MHz CPU	M99C03-E-029
Revision 1.07	4/25/2001	Add support PC-133 256MB SDRAM, vender list: KingSton,Transcend,KingMax.	

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Suites

Communication

Database

Graphics

Presentation

Program

Diagnostic Utility

Tools

Scan

Internet

CD Title Game

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 AGP,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 : FB11 PCB Rev 1.3
Product Name : Intel 440BX Based Mainboard
System BIOS : Award BIOS Version IAA45
PCI IDE : Internal PCI Mastre dual IDE
LPC : Winbond W83977EF-AW

3. Mainboard CPU Supports:

Intel:

Intel Processors	Bus	Package	Status
Celeron 300MHz (with 128K cache)	66	PPGA	Pass
Celeron 333MHz	66	PPGA	Pass
Celeron 366MHz	66	PPGA	Pass
Celeron 400MHz	66	PPGA	Pass
Celeron 433MHz	66	PPGA	Pass
Celeron 466MHz	66	PPGA	Pass
Celeron 500MHz	66	PPGA	Pass
Celeron 533MHz	66	PPGA	Pass
Celeron 566MHz	66	FC-PGA	Pass
Celeron 600MHz	66	FC-PGA	Pass
Celeron 667MHz	66	FC-PGA	Pass
Celeron 700MHz	66	FC-PGA	Pass
Celeron 766MHz	66	FC-PGA	Pass
Celeron 800MHz	100	FC-PGA	Pass
Pentium III 500MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 533MHz (Coppermine)	133	FC-PGA	Pass
Pentium III 550MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 600MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 600MHz (Coppermine)	133	FC-PGA	Pass
Pentium III 650MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 667MHz (Coppermine)	133	FC-PGA	Pass
Pentium III 700MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 733MHz (Coppermine)	133	FC-PGA	Pass
Pentium III 750MHz (Coppermine)	100	FC-PGA	Pass
Pentium III 800MHz (Coppermine)	133	FC-PGA	Pass
Pentium III 850MHz (Coppermine)	100	FC-PGA	Pass

Cyrix :

Cyrix Processors	Bus	Package	Status
Cyrix III 533MHz	133	FPGA	Pass

Cyrix III 550MHz	100	FPGA	Pass
Cyrix III 600MHz	133	FPGA	Pass

4 System Specification for Hardware and Software Utilities

The mainboard hardware portion was configured as follows :

Item	Description
System Core Logic	Intel 440BX
System Cache	128K/256K Pipeline Burst SRAM Built-in CPU
System Memory	Maximum : 768MB SDRAM
System Slots	1 AGP and 5 PCI and 2 ISA(Option) slots
I/O Corelogic	Winbond 83977EF-AW Support Normal,EPP,ECP mode and IR interface

4.1 Main Functionality :

Num.	M/B function	Result
1	ACPI Ready (under Win 98/Win 2000)	PASS
2	APM 1.2	PASS
3	Wake On LAN / Wake On Ring	PASS
4	RTC Alarm Function	PASS
5	H/W Monitoring (+/-12V,+/-5V,Vccp,+5VR)	PASS
6	Logo Genie	PASS
7	BIOS Easy Kit	PASS
8	Overclock Partner	PASS
9	BIOS Flash Protect (Guardian feature)	PASS
10	USB Function	PASS
11	Power Failure feature	PASS
12	Keyboard/PS2 mouse Power On	PASS
13	Year 2000 Compliance	PASS

4.2 Main Software Utilities :

Num.	M/B function	Version	Result
1	Intel IDE Bus Master for Win 95	3.02	PASS
2	Intel IDE Bus Master for Win NT	3.0	PASS
3	Intel Patch file for Win 95/98	2.2	PASS
4	Award BIOS Flash ROM Utilities	7.64A	PASS
5	Award DMICFG Utilities for DOS	2.3Du	PASS

5. Jumper Function Verification

Description	Jumper Name	Default Option	Status
Speaker Connector	SPEAKER	Open	Pass
Power LED	POWER LED	Open	Pass
Sleep button	SLP BTN	Open	Pass
Sleep LED	SLP LED	Open	Pass

IDE LED Connector	HDD LED	Open	Pass
Reset Switch	RST BTN	Open	Pass
Remote Power Switch	PWR BTN	Open	Pass
Message LED	MSG LED	Open	Pass
CPU FAN Connector	CPU_FAN	Open	Pass
Chassis FAN Connector	CHS_FAN	Open	Pass
CPU Clock Rate	SW1-1~4	On,Off,On,Off	Pass
Clear CMOS	SW1-5	Off	Pass
Clear Password Switch	SW1-6	Off	Pass
Keyboard Power-On Select	KB_PWN	2-3	Pass
System Bus Clock	FS0/FS1/FS2	2-3/1-2/1-2	Pass
	FS3	2-3	Pass
LAN Wake Up	WOL	Open	Pass
IR interface	IR	Open	Pass

6. Stability Test

6.1 Worst Case (Full Loading)Test : (1 days)

System Configuration		
CPU : Pentium III 700	VGA/Audio : Matrox G200 AGP	
Cache Memory : 256 K	Power Supply : Delta DPS-200PB103F 200W	
Memory : SEC 128MB SDRAM x 3		
HDD : Seagate ST313032A 13GB		
FDD : Mitsumi D353F3 1.44MB		
CD ROM : SONY CDU711 32X		

Test Conditions:

- All memory banks loaded.
- Both IDE channels are used.
- Temperature Setting:
Install System on office 25°C and Climb from 25°C to 35°C and climb from 35°C to 25°C.
- Diagnostic Program: ZD WinStone 99 burn in test.

NO.	Test Engineer	Test Result	Remark
1.	Peter Churg	PASS	

6.2 Power Cycling test (Power On/Off Test): (30 hours)

System Configuration		
CPU : Pentium III 667	VGA/Audio : Voodoo3 3000 AGP	
Cache Memory : 256 K	Mouse : Microsoft PS/2 mouse	
On Board Memory : SEC SDRAM 256MB	Power Supply : Seventeam ST-250GL 250W	
FDD : Mitsumi D353F3 1.44MB		

Test Conditions:

- Temperature range: 25°C
Power On/Off ten times in each condition

NO.	Test Engineer	Test Result	Remark
1.	Peter Churg	PASS	Cool boot total: 1900 times

6.3 Field (Stress) Test: Dynamic Burn-in Tests

Software Name	Duration	Result
SCO UNIX Open Desktop 5.04	24 hr.	<i>Pass</i>
Test Configurations for SCO	Intel Pentium III 650MHz Adaptec AHA-2940U2W SONY CDU-625 24X SCSI CD-ROM Seagate ST-34555N 4.5GB Ultra SCSI Disk 128MB SDRAM Memory ATI Rage pro 8MB SGRAM AGP VGA Test Program : Create a batch file	
Winstone 99 Under WIN98 SE	24hr.	<i>Pass</i>
Test Configurations for Win 98	Intel Pentium III 750MHz Quantum Fireball CX Ultra DMA66 10.2GB HDD Buffalo 128MB SDRAM Memory.(SEC) Diamond Viper V770 32MB SGRAM AGP VGA	
BAPCO for Windows NT 4.0	24hr.	<i>Pass</i>
Test Configurations for SYSmark 32 under Windows NT 4.0	Intel Pentium III 667MHz IBM DTTA-371010 Ultra DMA33 10.2GB IDE HDD Buffalo 256MB SDRAM Memory.(128MB x2) Diamond Viper V770 Ultra 32B SDRAM AGP VGA	

7. Base Operating Systems HCT Tests For PC99

Operating System	Company	HCT Name	Result
Windows 2000	Microsoft	Microsoft WHQL HCT 9.5	<i>Pass</i>
Test Configurations	Intel Pentium III 600MHz 128MB SDRAM Memory. ATI Rage 128GL 32MB SDRAM AGP VGA		

8. Hardware Compatibility Test Suite

8.1 Memory

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A
☒ Win 2000 Professional
CPU Intel Pentium III 800MHz (Bus clock 133MHz) ☒ Intel
Intel Pentium III 850MHz (Bus clock 100MHz)
HDD Quantum Fireball Plus LM 20GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA Matrox Millennium G400 MAX ☒ PCI_Slot: ☒ AGP
CD-ROM Pioneer DVD-115 16X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Sound Creative PCI64 ☒ ISA_Slot: ☒ PCI_Solt: 3
Mouse Microsoft IntelliMouse PS/2 Mouse ☒ COM ☒ PS/2

The following SDRAM module test cool boot, Install Win 98 SE/2000 and run CC Winstone 2000 under Windows 98 SE/2000 with BIOS set up default value and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

8.1.1 SDRAM DIMM Module (PC66)

Vender	IC Part No.	ECC	Size	Side	Module No.
Fujitsu	81117622A-100FN	No	16MB	S	
	81117822E-100FN	No	32MB	D	
	81164842A-100FN	Yes	128MB	D	
HYUNDIA	HY57V168010A-10	No	16MB	S	HYM7V64200 TFG-10
	HY57V168010A-10	No	16MB	S	MEMDIMO12AAWW
	HY57V168010A-10	Yes	32MB	D	HYM7V72A400 TFG-10
	HY57V658020TC-10	Yes	64MB	S	HYM7V72A801
	HY57V658020TC-10	No	128MB	D	U8
Micron	MT48LC2M8A-10	No	16MB	S	MTBLSDT264AG
	MT48LC2M8A1-10	No	16MB	S	MT8LSDT264AG-662C1
	MT48LC2M8A1-10	No	32MB	S	MT16LSDT464AG-66CL2
	MT48LC2M8A1-10	Yes	32MB	D	MT16LSDT472A6-662C1
Mitsubishi	M5M4V16S30CTP-12	No	16MB	S	MH2S64CZTJ-15
	M5M4V16S30CTP-12	No	32MB	D	MH4S64CZTJ-16
	M5M4V16S30DTP	Yes	32MB	D	M04B032M2EE72208-C3100
SEC	KM48S2020AT-G12	No	16MB	S	MDS163S-28
	KM48S2020AT-G12	No	16MB	S	KMM366S203AT-G2
	KM48S2020BT-G10	No	16MB	S	KMM366S203BTN-G0
	KM48S2020BT-G10	Yes	32MB	D	KMM374S403BTN-G0
	KM416S4030AT-G10	No	64MB	D	KMM366S824AT-G0
	KM48S8030AT-G10	No	64MB	S	KMM366S823AT-G0
SIEMENS	HYP39S16800T-10	No	16MB	S	NYS64V2000GU-10
Toshiba	TC59S1608AFT-12A	No	16MB	S	THMY640231AEG-12A
	TC59S1608AFT-12A	No	32MB	D	THMY644041AEG-12A

8.1.2 SDRAM DIMM Module (PC100)

Vender	IC Part No.	ECC	Size	Side	Module No.
NEC	D4564841G5-A80-9JF	Yes	128MB	D	BUFFALO VSJ-ED128M2
Hyundai	HY57V65802B-10P	No	128MB	D	VSJ-D128M2 (BUFFALO)
SIEMENS	HYB39S64800BT-8	No	64MB	S	HYS64V8200GU-8
	HYB39S64800BT-8	Yes	128MB	D	HYS72V16220GU-8
	HYB39S64800CT-8	No	64MB	S	HYS64V8300GU-8-C
	HYB39S64800CT-8	Yes	128MB	D	HYS72V16220GU-8-C
SEC	KM48S2020CT-GH	Yes	32MB	D	BUFFALO VSJ-D32M
	KM48S8030BT-GH	Yes	64MB	S	BUFFALO VSJ-ES64M2
	KM48S8030BT-GH	No	128MB	D	BUFFALO VSJ-D128M2
Apacer	GM72V66841ET7K	No	128MB	D	71.73323.065 (Hyundai)
KingMAX	KSV884T4A1A-08A	No	64MB	S	MPC643S-882
	KSV884T4A1A-08A	No	128MB	D	MPCA83S-882
KingStone	TC59SM716FT-80	No	64MB	S	KGM100X64C2/64 (Toshiba)
	PTT3S128081T-8	No	128MB	S	DT100128M8-T01151

8.1.3 SDRAM DIMM Module (PC133)

Vender	IC Part No.	ECC	Size	Side	Module No.
SIEMENS	HYB39S64800BT-7.5	No	64MB	S	HYS64V8300GU-7.5
	HYB39S64800BT-7.5	No	128MB	D	HYS64V16220GU-7.5
MICRON	MT48LC8M8A2-75B	No	64MB	S	MT8LSDT864AG-133B4
	MT48LC8M8A2-75B	Yes	64MB	S	MT9LSDT872AG-133B4
	MT48LC8M8A2-75B	No	128MB	D	MT16LSDT1664AG-133B4
Hyundai	HY57V658020B TC-75	No	64MB	S	HYM7V63801BTFG-75
	HY57V658020B TC-75	No	128MB	D	HYM7V631601BTFG-75
	HY57V658020B TC-75	Yes	128MB	D	HYM7V73A1601BTFG-75
NEC	D4564841G5-A75-9JF	No	64MB	S	MC-458CB647LF-A75
Mitsubishi	M2V64S30BTP	No	64MB	S	MH8S64BALD-6
Winbond	W981208AH-75	No	128MB	S	VS133-128M
KingMAX	KSV884T4A1A-07	No	64MB	S	MPG643S-883
	KSV884T4A1A-07	No	128MB	D	MPGA83S-883
	KSV684T4A1A-06	No	256MB	D	MPJB63S-683
Hitachi	5264805FTT75	No	64MB	S	VS133-64M
	5264805FTT75	No	128MB	D	VS133-128M
Apacer	HYB39S64800BT-7.5	No	64MB	S	71.63350.114 (Infineon)
	AM2V648C2T75	No	64MB	S	71.63350.034 (Apacer)
	HYB39S64800BT-7.5	No	128MB	D	71.73350.114 (Infineon)
	HYB39S64800AT-7.5	No	128MB	D	71.73350.114 (SIEMENS)
	AM2V648C2T75	No	128MB	D	71.73350.034 (Apacer)

KingSton	0312804CT3A-75A	No	256MB	D	KVR-PC133/256 (IBM)
Transcend	W981208BH-75	No	256MB	D	(Winbond)

8.2 Add-on Cards

8.2.1 Display Adapter Products

8.2.1.1 Front Side Bus clock 100MHz

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.222A .

CPU Intel Pentium III 700MHz (100x7.0) ☒ Intel

Memory SEC 128MB (5264805FTT75) Total: 128 MB ☒ PC100 ☒ PC133

HDD Maxtor 94098U8 40.9GB ☒ PIO4 ☒ UDMA/66

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

CD-ROM Hitachi GD-2500 6X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound Creative Sound Blaster Live! PCI ☒ ISA_Slot: ☒ PCI_Slot: 2

Mouse Logitech MouseMan Mouse ☒ COM ☒ PS/2

The following PCI/AGP VGA cards test Final Reality V1.01/ 3D WinBench 99 /3Dmark 2000 under Windows 98 SE(ACPI)with their respective VGA drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

AGP Display Adapter Products

Vendor	Model Name	Product Description	Driver version
ATI	Rage pro	XPERT@Play 98	4.11.2611
	Rage 128GL	Rage Fury	4.11.6263
	Rage 128GL	XPERT 128	4.11.6263
	Rage 128VR	XPERT 2000	4.11.6263
	Rage 128GL	All-In-Wonder 128	4.11.6263
	Rage 128 Pro	Rage Fury MAXX	4.11.7925
	Rage 128 Pro	Rage Fury Pro	4.11.6249
ASUS	Riva 128ZX	AGP-V3000ZXTV	4.10.01.0250
	S3 Savage 3D	AGP-V3100	4.11.01.4005
	3Dfx Voodoo Banshee	AGP-V3200	4.11.01.0378
	S3 Savage 4	AGP-V3500	1.00.0603
	Riva TNT2	AGP-V3800	4.11.01.0225
	Riva GeForce 256	AGP-V6600	4.12.01.0368
	Riva GeForce 256 DDR	AGP-V6800	4.12.01.0368
Matrox	MGA-G200	Millennium G200	4.11.01.2410
	MGA-G400	Millennium G400 SH	4.12.01.1520
	MGA-G400	Millennium G400 DH	4.12.01.1520
	MGA-G400	Millennium G400 MAX	4.12.01.1520

Diamond	3DLabs Permedia II	Fire GL1000 pro	4.10.01.2359
	Riva 128	Viper V330	4.10.01.0279
	Riva TNT	Viper V550	4.12.01.0368
	Intel i740	Stealth II G460	4.11.01.1400
	3Dfx Voodoo Banshee	Monster Fusion	4.10.01.0213
	Riva TNT2	Viper V770	4.12.01.0368
	Riva TNT2 Ultra	Viper V770 Ultra	4.12.01.0368
3dfx	Voodoo 3 2000	3dfx Voodoo 3 2000	4.12.01.1222
	Voodoo 3 3000	3dfx Voodoo 3 3000	4.12.01.1222
	Voodoo 3 3500	3dfx Voodoo 3 3500 TV	4.12.01.1222
PowerColor	S3 Savage 3D	Savage 3D	4.10.02.4004
Hercules	Riva GeForce 256	3D Prophet DDR-DVI	4.12.01.0377
Gigabyte	S3 Savage 4	GA-650	4.11.01.8006
	Riva TNT2 -A	GA-660 Plus	4.11.01.0208
Compro	SiS 6326	Daytona 3D SiS 6326	4.10.01.0905
ELSA	3Dlabs Permedia II	Gloria Synergy	4.11.01.0203
	Riva TNT	ERAZOR II	4.12.01.0112
	3Dfx Voodoo Banshee	Victory II	4.11.01.0300
	S3 Savage 4	Winner II	4.11.01.0310
	Riva TNT2	Synergy II	4.11.01.0300
	Riva TNT2	ERAZOR III	4.12.01.0112
	Riva TNT2 M64	ERAZOR III LT	4.12.01.0112
	Riva Vanta	ERAZOR III LT-16	4.12.01.0116
	Riva TNT2 Pro	ERAZOR III Pro	4.12.01.0112
	Riva GeForce 256	ERAZOR X	4.12.01.0104
	Riva GeForce 256 DDR	ERAZOR X ²	4.12.01.0104
YUAN	Riva TNT2 M64	3D Xtreme 2	4.12.01.0368
Creative	S3 Savage 4	3D Blaster Savage 4	4.11.01.2104
	Riva TNT2 Ultra	3D Blaster Riva TNT2 Ultra	4.12.01.2207
	Riva TNT2 M64	Riva TNT2 Value	4.12.01.2207
	Riva GeForce 256	3D Blaster GeForce256	4.12.01.2207
	Riva GeForce 256	3D Blaster GeForce Pro	4.12.01.2207
Leadtek	Riva TNT2 Ultra	WinFast 3D S320 II Ultra	4.11.01.0208
	Riva Vanta	WinFast 3D S320V	4.11.01.0208
	Riva GeForce 256	Winfast GeForce256	4.12.01.0366
	Riva GeForce 256 GTS	Winfast GeForce 2 GTS	4.12.01.0384
	SiS 300	Winfast VR300	4.12.01.1020

PCI Display Adapter Products

Vendor	VGA Chip	Product Description
ATI	ATI Mach64 VT	ATI Mach64 VT
	ATI Rage II	ATI Rage II 3D
ELSA	S3 Virge/VX	Winner 3000L 3D

	S3 Virge	Victory 3D-4
STB	3dfx Voodoo3-2000	3dfx Voodoo3 2000 PCI
Number #9	LSI 128	Image 128
Matrox	MGA-1064SG	Mystique 4MB SGRAM
Cardex	S3 Virge/DX	S3 Virge/DX
Creative	Cirrus CL-GD5462	
ASUS	Riva TNT2	PCI-V3800

8.2.1.2 Front Side Bus clock 133MHz

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.222A .

CPU Intel Pentium III 800MHz(133x6.0) ☒ Intel

Memory Hitachi 128MB (5264805FTT75) Total: 256 MB ☒ PC100 ☒ PC133

HDD Quantum Fireball LM 30GB IDE ☒ PIO4 ☒ UDMA/66

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

CD-ROM Pioneer DVD-115 16X IDE DVD

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound Creative Sound Blaster Live! PCI

☒ ISA_Slot: ☒ PCI_Slot: 2

Mouse Logitech MouseMan Mouse

☒ COM ☒ PS/2

The following PCI/AGP VGA cards test Final Reality V1.01/ 3D WinBench 99 /3Dmark 2000 under Windows 98 SE(ACPI)with their respective VGA drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

AGP Display Adapter Products

Vendor	Model Name	Product Description	Driver version
ATI	Rage pro	XPERT@Play 98	4.11.2611
	Rage 128GL	Rage Fury	4.11.6263
	Rage 128GL	XPERT 128	4.11.6263
	Rage 128VR	XPERT 2000	4.11.6263
	Rage 128GL	All-In-Wonder 128	4.11.6263
	Rage 128 Pro	Rage Fury MAXX	4.11.7925
	Rage 128 Pro	Rage Fury Pro	4.11.6249
ASUS	3Dfx Voodoo Banshee	AGP-V3200	4.11.01.0378
	Riva GeForce 256	AGP-V6600	4.12.01.0368
	Riva GeForce 256 DDR	AGP-V6800	4.12.01.0368
Matrox	MGA-G400	Millennium G400 SH	4.12.01.1520
	MGA-G400	Millennium G400 DH	4.12.01.1520
	MGA-G400	Millennium G400 MAX	4.12.01.1520

Diamond	3DLabs Permedia II	Fire GL1000 pro	4.10.01.2359
	Riva 128	Viper V330	4.10.01.0279
	Riva TNT	Viper V550	4.12.01.0368
	Intel i740	Stealth II G460	4.11.01.1400
	Riva TNT2	Viper V770	4.12.01.0368
3dfx	Voodoo 3 2000	3dfx Voodoo 3 2000	4.12.01.1222
	Voodoo 3 3000	3dfx Voodoo 3 3000	4.12.01.1222
	Voodoo 3 3500	3dfx Voodoo 3 3500 TV	4.12.01.1222
Hercules	Riva GeForce 256	3D Prophet DDR-DVI	4.12.01.0377
ELSA	3DLabs Permedia II	Gloria Synergy	4.11.01.0203
	Riva TNT	ERAZOR II	4.12.01.0112
	3Dfx Voodoo Banshee	Victory II	4.11.01.0300
	Riva TNT2	Synergy II	4.11.01.0300
	Riva TNT2	ERAZOR III	4.12.01.0112
	Riva TNT2 M64	ERAZOR III LT	4.12.01.0112
	Riva TNT2 Pro	ERAZOR III Pro	4.12.01.0112
	Riva Vanta	ERAZOR III LT-16	4.12.01.0116
	Riva GeForce 256	ERAZOR X	4.12.01.0104
	Riva GeForce 256 DDR	ERAZOR X ²	4.12.01.0104
YUAN	Riva TNT2 M64	3D Xtreme 2	4.12.01.0368
Gigabyte	S3 Savage 4	GA-650	4.11.01.8006
	Riva TNT2 -A	GA-660 Plus	4.11.01.0208
Creative	Riva TNT2 M64	Riva TNT2 Value	4.12.01.2207
	Riva GeForce 256	3D Blaster GeForce256	4.12.01.2207
	Riva GeForce 256	3D Blaster GeForce Pro	4.12.01.2207
Leadtek	Riva Vanta	WinFast 3D S320V	4.11.01.0208
	Riva GeForce 256	Winfast GeForce256	4.12.01.0366
	Riva GeForce 256 GTS	Winfast GeForce 2 GTS	4.12.01.0384
	SiS 300	Winfast VR300	4.12.01.1020

8.2.2 SCSI Adapter Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .

☒ Win NT Ver: 4.0 + SP6

CPU Intel Pentium III 600MHz(133X4.5) ☒ Intel

Memory SIEMENS 128MB (HYB39S64800BT-7.5) **Total: 256 MB** ☒ PC100 ☒ PC133
VGA Matrox Millennium G400 SH ☒ PCI_Slot: ____ ☒ AGP
HDD Quantum Atlas III 9.1GB SCSI HDD ☒ Ultra II SCSI ☒ Ultra Wide
Seagate ST-39173LW 9.1GB ☒ Ultra SCSI ☒ Ultra Wide
CD-ROM Toshiba XM-6210B 32X SCSI ☒ Ultra SCSI ☒ Ultra Wide
Sound Creative PCI128 ☒ ISA_Slot: ____ ☒ PCI_Slot: : 3
Mouse Logitech MouseMan Mouse ☒ COM ☒ PS/2

The following PCI SCSI cards test WinStone 99 under Windows 98 SE/NT with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

Vendor	Model Name	Product Description	Bus I/F
Adaptec	AHA-2940UW	Adaptec AHA-2940UW PCI SCSI card	PCI
	AHA-2940U2W	Adaptec AHA-2940U2W PCI SCSI card	PCI
	AHA-2940	Adaptec AHA-2940 PCI SCSI	PCI
BusLogic	FlashPoint LT	Buslogic BA81C15 PCI SCSI	PCI
	BT-950R	Buslogic BT-950R PCI SCSI	PCI
	KT-958	Buslogic KT-958 Narrow SCSI	PCI
Initio	INI-9100UW	Initio INI-9100UW PCI SCSI	PCI
Tekram	DC-390U2W	Tekram DC-390U2W PCI SCSI	PCI

8.2.3 FAX / Modem Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
CPU Intel Celeron 533MHz ☒ Intel
Memory SIEMENS 128MB(HYB39S64800BT-8) **Total: 256 MB** ☒ PC100 ☒ PC133
VGA ELSA ERAZOR III 32MB SDRAM ☒ PCI_Slot: ____ ☒ AGP
HDD Maxtor 91021U2 10.2GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM Hitachi CDR-8430 32X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Sound Formosa Crystal CX4237B ISA PnP ☒ ISA_Slot: 1 ☒ PCI_Slot: ____
Mouse Genius NetMouse PS/2 Mouse ☒ COM ☒ PS/2

The following External modem test includes connecting to the internet and download files under under Windows 98 with their respective modem drivers installed .

Vendor	Product Description	Bus I/F
GVC	F-1156IV/R2 KB3497	Internal/PCI
GVC	SF-1156HV/R21 KB3471	Internal/ISA
Turbo	Motorola SM56 Voice PCI	Internal/PCI
HSP	V1456VQH-P1 56Kbps	Internal/PCI
Archtek	A12PW19085A 56Kbps	Internal/PCI
Conexaut	Soft 56K data/Fax/RTAP	Internal/PCI

CIS	PSL 56K data/Fax/RTAP	Internal/PCI
Diamond	Supra MAX 56K ITU & flex	Internal/PCI

8.2.4 Sound Adapter Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
CPU Intel Pentium 650MHz ☒ Intel
Memory SEC 64MB (KM48S8030BT-GH) **Total: 128 MB** ☒ PC100 ☒ PC133
VGA ELSA ERAZOR III Pro **PCI Slot: ____** ☒ AGP
HDD Quantum Fireball CR 4.3 GB IDE **PIO4** ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM Acer 650P 50X IDE **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 Video CD under Windows 98 SE with their respective sound drivers installed .

Vendor	Model Name	Product Description	Interface
Creative	ES1370	Sound Blaster PCI 64	PCI
	CT-4700	Sound Blaster PCI 128	PCI
	CT-4620	Sound Blaster Live!	PCI
Diamond	Avortex AU8830	Monster Sound MX300	PCI
Top Solution	YAMAHA 744	Ultra Live 5.1	PCI
FIC	ESS Canyon 3D	Hi-Five PCI Sound Card	PCI
Formosa	SC-4237	Crystal CX4237B ISA PnP Sound	ISA PnP

8.3 Storage

8.3.1 SCSI Peripheral Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
☒ Win NT Ver: 4.0 + SP6
CPU Intel Pentium III 533MHz ☒ Intel
Memory Micron 64MB (MT48LC8M8A2-75B) **Total: 256 MB** ☒ PC100 ☒ PC133
VGA ATI Rage pro Turbo 32MB SDRAM **PCI Slot: ____** ☒ AGP
SCSI AHA -2940U2W Ultra 2 SCSI **ISA** ☒ PCI Slot: 2 .
Mouse Logitech First Mouse+ Mouse **COM** ☒ PS/2

The following SCSI devices test HCT Stress and WinStone 99 under Windows 98/NT with their respective SCSI drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

ITEM	Vendor	Model Name	Product Description
SCSI Hard Disk	Quantum	Fireball SE	Ultra SCSI HDD 8.4GB
		Viking II	Ultra2 Wide SCSI HDD 4.5GB
		Atlas II	Ultra SCSI HDD 4.5GB
		Atlas III	Ultra Wide SCSI HDD 9.1GB
	Seagate	ST-34555N	Ultra SCSI HDD 4.5GB
		ST-39173W	Barracuda 9LP Ultra Wide 9.1GB
		ST-34502LW	Cheetah 9LP Ultra2 Wide 4.5GB
	IBM	DCAS34330	4.5GB Ultra SCSI HDD
		DCAS34330	4.5GB Ultra Wide SCSI HDD
	WD	WDE2170	4.3GB Ultra Wide SCSI HDD
CD-ROM	Plextor	PX-32Tsi	Ultra SCSI CD-ROM 32X
	Panasonic	CR-508	SCSI-II CD-ROM 24X
	NEC	CDR-1910	Ultra SCSI CD-ROM 32X
	SONY	CDU-625	SCSI-II CD-ROM 24X
	TEAC	CD-523S	Ultra SCSI CD-ROM 32X
	Toshiba	XM-6210B	Ultra SCSI CD-ROM 32X
	Pioneer	DR-533	Narrow SCSI II CD-ROM 24X

8.3.2 IDE Fixed Disk Drive Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
☒ Win NT Ver: 4.0 + SP6
CPU Intel Pentium III 750MHz ☒ Intel
Memory SIEMENS 128MB(HYB39S64800AT-8)Total: 256 MB ☒ PC100 ☒ PC133
CD-ROM Lite-On LTN-403L 40X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA Creative Geforce 256 32MB DDRAM ☒ PCI Slot: . ☒ AGP
Sound Creative PCI 128 ☒ ISA Slot: . ☒ PCI Slot: : 2
Mouse Logitech First Mouse+ Mouse ☒ COM ☒ PS/2

The following IDE devices test WinStone 99/WinBench 99 under Windows 98/NT with Intel IDE Bus Master drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

8.3.2.1 IDE Ultra DMA/33

Vendor	Model Name	Mode	Capacity
Maxtor	Diamond 88400D8	Ultra DMA 33	8.4GB
	Diamond 86480D6	Ultra DMA 33	6.4GB
	Diamond 84320D4	Ultra DMA 33	4.3GB
	Diamond 91000D8	Ultra DMA 33	10.0GB
Fujitsu	MPA3052AT	Ultra DMA 33	5.2GB

	MPA3043AT	Ultra DMA 33	4.3GB
	MPB3064AT	Ultra DMA 33	6.4GB
	MPB3032AT	Ultra DMA 33	3.2GB
	MPC3043AT	Ultra DMA 33	4.3GB
	MPC3064AT	Ultra DMA 33	6.4GB
	MPC3102AT	Ultra DMA 33	10.2GB
Quantum	Fireball ST	Ultra DMA 33	6.4GB
	Fireball SE	Ultra DMA 33	4.3GB
	Fireball EL	Ultra DMA 33	5.1GB
	Fireball EX	Ultra DMA 33	6.4GB
	Fireball EX	Ultra DMA 33	12.7GB
Seagate	Medialist pro ST-34342A	Ultra DMA 33	4.3GB
	Medialist pro ST-39140A	Ultra DMA 33	9.1GB
	Medialist pro ST-36530A	Ultra DMA 33	6.5GB
WD	Caviar AC36400	Ultra DMA 33	6.4GB
	Caviar AC38400	Ultra DMA 33	8.4GB
IBM	DHEA-36480	Ultra DMA 33	6.4GB
	DTTA-371010	Ultra DMA 33	10.1GB

8.3.2.2 IDE Ultra DMA/66

Vendor	Model Name	Mode	Capacity
WD	AC28400	Ultra DMA 66	8.4GB
	AC310200	Ultra DMA 66	10.2GB
	AC313000	Ultra DMA 66	13GB
Seagate	ST-36421A	Ultra DMA 66	6.4GB
	ST-313032A	Ultra DMA 66	13GB
	ST-317242A	Ultra DMA 66	17.2GB
Fujitsu	MPD3064AT	Ultra DMA 66	6.4GB
	MPD3084AT	Ultra DMA 66	8.4GB
	MPD3108AT	Ultra DMA 66	10.8GB
	MPE3064AT	Ultra DMA 66	6.4GB
	MPE3102AT	Ultra DMA 66	10.2GB
	MPE3102AH	Ultra DMA 66	10.2GB
	MPE3204AT	Ultra DMA 66	20.4GB
	MPE3204AH	Ultra DMA 66	20.4GB
Quantum	Fireball CR	Ultra DMA 66	4.3GB
	Fireball CR	Ultra DMA 66	8.4GB
	Fireball CX	Ultra DMA 66	10.2GB
	Fireball CX	Ultra DMA 66	13GB
	Fireball KA	Ultra DMA 66	9.1GB
	Fireball KA	Ultra DMA 66	13.6GB
	Fireball LA	Ultra DMA 66	8.4GB
	Fireball Plus LM	Ultra DMA 66	20.5GB
	Fireball LM	Ultra DMA 66	30GB
IBM	DJNA-370910	Ultra DMA 66	9.1GB
	DJNA-352030	Ultra DMA 66	20.3GB
	DPTA-372730	Ultra DMA 66	27.3GB



	DPTA-353750	Ultra DMA 66	37.5GB
Maxtor	90845U3	Ultra DMA 66	8.4GB
	90871U2	Ultra DMA 66	8.7GB
	91021U2	Ultra DMA 66	10.2GB
	91360U4	Ultra DMA 66	13.6GB
	91531U3	Ultra DMA 66	15.3GB
	92040U6	Ultra DMA 66	20GB
	92049U4	Ultra DMA 66	20GB
	92720U8	Ultra DMA 66	27GB
	54098U8	Ultra DMA 66	40GB
Samsung	SV1364D	Ultra DMA 66	13.6GB
	SV2046D	Ultra DMA 66	20.4GB

PS: Intel 440BX support "Ultra DMA 33" only.

8.3.2.3 IDE Ultra DMA/100 (Test under Promise ATA/100 PCI card)

Vendor	Model Name	Mode	Capacity
IBM	DTLA-307015	Ultra DMA 100	15.3GB
	DTLA-305020	Ultra DMA 100	20.5GB
	DTLA-307020	Ultra DMA 100	20.5GB
	DTLA-307030	Ultra DMA 100	30.7GB
	DTLA-307045	Ultra DMA 100	46.1GB
	DTLA-307060	Ultra DMA 100	61.4GB
	DTLA-307075	Ultra DMA 100	76.8GB

8.3.3 Floppy Disk Drive Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .

☒ Win NT Ver: 4.0 + SP6

CPU Intel Celeron 566MHz ☒ Intel

Memory KingMAX 64MB (KSV884T4A1A-08A) Total: 128 MB ☒ PC100 ☐ PC133

VGA Matrox Millennium G400 DH 32MB SDRAM ☐ PCI Slot: ☒ AGP

HDD Seagate ST-313032A 13GB IDE ☐ PIO4 ☒ UDMA/66

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM BTC BCD-40BXH 40X IDE Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Sound Creative PCI128 ☐ ISA Slot: ☒ PCI Slot: : 2

Mouse Logitech MouseMan Mouse ☐ COM ☒ PS/2

The following Floppy devices were tested by format disk, boot and read/write file under Windows 98/NT with Intel IDE Bus Master drivers installed .

Vendor	Model Name	Product Description
--------	------------	---------------------

Panasonic	JU-257A606P	1.44MB Floppy Disk Drive
TEAC	FD-235HF	1.44 MB Floppy Disk Drive
SONY	MPF920-E	1.44 MB Floppy Disk Drive
ALPS	DF354N901C	1.44 MB Floppy Disk Drive

8.3.4 ATAPI CD-ROM /DVD-ROM Device Product

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
☒ Win 2000 Ver: 5.00.2195 .
CPU Intel Pentium III 733MHz ☒ Intel
Memory Hitachi 128MB (5264805FTT75) **Total: 128 MB** ☒ PC100 ☒ PC133
HDD Maxtor 91531U3 15.3GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA ATI Rage Fury MAXX 64MB SDRAM ☒ PCI Slot: ____ ☒ AGP
Sound Creative PCI 64 ☒ ISA Slot: ____ ☒ PCI Slot: : 2
Mouse Logitech Trackman Marble Mouse ☒ COM ☒ PS/2

The following IDE devices play VCD/DVD over night under Windows 98 SE/2000 with Intel IDE Bus Master drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

8.3.4.1 ATAPI CD-ROM:

Vendor	Model Name	Product Description
Panasonic	CR-587-D	ATAPI CD-ROM 32X Mode4
Acer	650P	ATAPI CD-ROM 50X UDMA2
LITE-ON	LTN-301	ATAPI CD-ROM 32X UDMA2
	LTN-403L	ATAPI CD-ROM 40X UDMA2
Creative	CD4834E	ATAPI CD-ROM 48X UDMA2
Philips	PCA323CD	ATAPI CD-ROM 32X UDMA2
A-Open	CD-940E/AKU	ATAPI CD-ROM 40X UDMA2
ASUS	CD-S400/A	ATAPI CD-ROM 40X UDMA2
	CD-S500/A	ATAPI CD-ROM 50X UDMA2
TEAC	CD-532EA	ATAPI CD-ROM 32X Mode3
	CD-540E	ATAPI CD-ROM 40X Mode4
SONY	CDU-711	ATAPI CD-ROM 32X UDMA2
	CDU-4811	ATAPI CD-ROM 48X UDMA2
Pioneer	DR-744	ATAPI CD-ROM 36X Mode4
BTC	BCD 48SB	ATAPI CD-ROM 48X UDMA2

8.3.4.2 ATAPI DVD-ROM:

Vendor	Model Name	Product Description
Panasonic	SR-8583-BXX	ATAPI DVD-ROM 5.0X
Toshiba	SD-M1202	ATAPI DVD-ROM 4.8X
SONY	DDU-220E	ATAPI DVD-ROM 5.0X
Hitachi	GD-2500	ATAPI DVD-ROM 6X
Pioneer	DVD-A03S	ATAPI DVD-ROM 6X
	DVD-114	ATAPI DVD-ROM 10X

8.3.5 ATAPI Disk Drive (IDE Interface)

Test Configuration:

OS Ver ☒ MS-DOS Ver: 6.22 .
☒ Win 98 SE Ver: 4.10.2222A .
CPU Intel Pentium III 550MHz ☒ Intel
Memory KingMAX 64MB (KSV884T4A1A-07) Total: 128 MB ☒ PC100 ☒ PC133
VGA ATI Rage Fury 328MB SDRAM ☒ PCI Slot: ____ ☒ AGP
HDD IBM DJNA-352030 20.3GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM TEAC CD-540E 40X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Sound Diamond Monster A3D Sound PCI ☒ ISA Slot: ____ ☒ PCI Slot: : 2
Mouse Microsoft IntelliMouse Mouse ☒ COM ☒ PS/2

The following Floppy devices were tested by format disk, boot and read/write file (large file) under DOS 6.22/Windows 98 with Intel IDE Bus Master drivers installed .

Vendor	Product Description
Panasonic	LKM-F434-105 LS-120
Zip	Z100ATAPI ZIP device 100MB
	Z100iIDE ZIP device 100MB

8.4 Peripherals

8.4.1 Parallel/Serial Port Products (Including IR)

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A
 CPU Intel Pentium III 533MHz ☒ Intel
 Memory SIEMENS 64MB (HYB39S64800BT-7.5) Total: 128 MB ☒ PC100 ☒ PC133
 HDD Maxtor 92040U6 20.4GB IDE ☒ PIO4 ☒ UDMA/66
 Channel: ☒ PM ☒ PS ☒ SM ☒ SS
 CD-ROM ASUS CD-S400/A 40X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
 VGA ASUS AGP-V3200 16MB SGRAM ☒ PCI_Slot: ☒ AGP
 Sound FIC Hi-Five PCI ☒ ISA_Slot: ☒ PCI_Slot: : 3
 Mouse Logitech TrackMan Marble Mouse ☒ COM ☒ PS/2

The following Parallel/Serial devices be tested under Windows 98 SE with Intel IDE Bus Master drivers installed.

Vendor	Product Description	Bus I/F
HP	HP LaserJet 6P support IR Interface	LPT/IR
Mustek	Mustek 1200CP Scanner	LPT
Parallel	DirectParallel universal cable	LPT
Road Runner	Express FD144 Parallel Port Floppy Drive	LPT
	Express XD Parallel Port Hard Driver	LPT
Kodak	DC210 InfraRed/Serial port Digital camera	COM/IR
ACTisys	ACT-IR210L	IR
	ACT-IR220L	COM(IR)
IRwave	IRwave320F	IR
	IRwave320S	COM(IR)
ADI	CommuPack 56K SVD Modem	COM
USR	Sportster 56K Faxmodem Modem	COM
GVC	56K/K56 FLEX ASVD Modem	COM

8.4.2 Mouse Products

Test Configuration:

OS Ver ☒ Win 95 Ver: OSR2.5 .
☒ Win 98 SE Ver: 4.10.2222A .
 CPU Intel Pentium III 750MHz ☒ Intel
 Memory Fujitsu 64MB (81F64842B-103FN) Total: 256 MB ☒ PC100 ☒ PC133
 HDD Maxtor 93073U6 30.7GB IDE ☒ PIO4 ☒ UDMA/66
 Channel: ☒ PM ☒ PS ☒ SM ☒ SS
 CD-ROM Creative CD4834E 48X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
 VGA ASUS AGP-V3800 32MB SGRAM ☒ PCI_Slot: ☒ AGP
 Sound YAMAHA 744 PCI ☒ ISA_Slot: ☒ PCI_Slot: : 2

The following Mouse devices test Office 97 and Game under Windows 95/98 with Mouse drivers installed.

Vendor	Model Name	Product Description	Bus I/F
Microsoft	IntelliMouse	Microsoft IntelliMouse Serial - PS/2 Mouse	Serial/ PS2
	IntelliMouse	IntelliMouse USB/PS2 Mouse (w IntelliEye)	USB/PS2
Logitech	MouseMan	Logitech MouseMan Serial - PS/2 Mouse	Serial/ PS2
	First Mouse+	Logitech First Mouse+ Serial - PS/2 Mouse	Serial/ PS2
	TrackMan Marble	Logitech TrackMan Marble Serial - PS/2 Mouse	Serial/ PS2
Genius	NetMouse	Genius NetMouse PS/2 Mouse	PS2

8.4.3 USB Device Products

Test Configuration:

OS Ver ☒ Win 98 **SE Ver:** 4.10.2222A .
CPU Intel Pentium III 667MHz ☒ Intel
Memory SIEMENS 64MB (HYB39S64800BT-7.5) **Total:** 128 MB ☐ PC100 ☒ PC133
HDD Maxtor 92040U6 20.4GB IDE ☐ PIO4 ☒ UDMA/66
Channel: ☒ PM ☐ PS ☐ SM ☐ SS
CD-ROM Creative CD4834E 48X IDE **Channel:** ☐ PM ☐ PS ☒ SM ☐ SS
VGA Voodoo3 3000 16MB SDGRAM ☐ PCI_Slot: ____ ☒ AGP
Sound Creative Sound Blaster Live! ☐ ISA_Slot: ____ ☒ PCI_Slot: : 3
Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following USB devices be tested under Windows 98 with Win 98 default driver installed.

Type	Vendor	Description
Mouse	Logitech	M-UA34
		M-UB48
		USB Wheel Mouse
		USB MouseMan Wheel
	Twinhead	S-Mouse
	Justy	UM-400
	Cypress	7-895 Mouse
HUB	Belkin	Express Bus F5U001
Camera	Kodak	DVC323
	AXIS	PCAM-QU
Faxmodem	USRobotics	56K Voice Faxmodem
Keyboard	BTC	8113W

	Jetime	ACK-298H
	Microsoft	Natural Keyboard Pro
	Chicony	KU-8933
Printer	EPSON	Stylus Color 740
Ethernet	CATC	USB to Lan 10BASE-T
Speaker	Philips	MAGNAVOX DSS350
Scanner	HP	ScanJet 4200C
GamePad	Creative	Cobra USB GamePad
	Logitech	WingMan Extreme USB GamePad
Joystick	Genius	Flight2000 F-22X
	Thrustmaster	TOP Gun

8.4.4 Joystick & GamePad

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A .
CPU Intel Pentium III 733MHz ☒ Intel
Memory Hyundai 128MB (HY57V658020B TC-75) **Total: 128 MB** ☒ PC100 ☒ PC133
HDD Maxtor 92720U8 27.2GB IDE **PIO4** ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
CD-ROM Hitachi CDR-8430 32X IDE **Channel:** ☒ PM ☒ PS ☒ SM ☒ SS
VGA Creative Riva TNT2 32MB SDRAM **PCI Slot:** ___. ☒ AGP
Sound Creative Sound Blaster Live! **ISA Slot:** ___. ☒ PCI Slot: : 2
Mouse Microsoft IntelliMouse Mouse **COM** ☒ PS/2

The following Joystick devices test Game under Windows 98 with themselves default driver installed.

Type	Vendor	Product Description
GamePad	Logitech	ThunderPad Digital
Joystick	Microsoft	SideWinder 3D Pro joystick
		SideWinder force feedback pro joystick
	Logitech	Wing Man Extreme digital joystick
		WingMan Force joystick
		CyberMan2 Digital Game Controller

8.5 Power Supply Products

Vendor	Product Description	Power	Type
DELTA	DPS-200PB-89G	200W	ATX

HIPRO	DPS-200PB-103D	200W	ATX
	DPS-200PB-103F	200W	ATX
	HP-200PPGN	200W	ATX
	HP-300SN Rev:02	300W	ATX
ZECK	ZKS-250WX	250W	ATX
	ZKS-300WX	300W	ATX
Seventeam	ST-250GL	250W	ATX
	ST-301HR	300W	ATX
Enlight	ATX-723B	230W	ATX
	ATX-725B	250W	ATX
Sea Sonic	SS-200GTX	200W	ATX

8.6 MPEG-2 DVD Display Products

Test Configuration:

OS Ver ☒ Win 98 SE Ver: 4.10.2222A
CPU Intel Pentium III 550MHz ☒ Intel
Memory Hyundai 128MB (HY57V658020B-10P) Total: 128 MB ☒ PC100 ☒ PC133
HDD Quntium CX 13000AT 13GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA ASUS AGP-V3800 32MB SDRAM ☒ PCI_Slot: ____, ☒ AGP
Sound Creative Sound Blaster Live! ☒ ISA_Slot: ____, ☒ PCI_Slot: : 2
Mouse Microsoft IntelliMouse Mouse ☒ COM ☒ PS/2

The following DVD player over night under Windows 98 with their respective DVD drivers installed and set to the follow condition 1024 x 768 x 16bit colors, resolution refresh rate of 85Hz, small font.

Vendor	VGA Chip	Product Description
Realmagic	Sigma Designs EM8300	DVDmagic Pro DVD card
Formosa	Sigma Designs EM8300	DVD8300 DVD card

9. Software Compatibility Test Suite

9.1 Base Operating System

9.1.1 Microsoft Windows 95/98/98 SE:

Test Configuration:

CPU Intel Pentium III 733MHz ☒ Intel
Memory SIEMENS 128MB (HYB39S64800BT-7.5) Total: 256 MB ☒ PC100 ☒ PC133
HDD Fujitsu MPE3102AH 10.2GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA Diamond Viper V770 32MB SDRAM ☒ PCI_Slot: ____, ☒ AGP

Sound Creative PCI 128

ISA_Slot: . PCI_Slot: : 2

CD-ROM Pioneer DR-744 36X IDE

Channel: YPM YPS SM YSS

Mouse Microsoft IntelliMouse Mouse

YCOM PS/2

Test	Item	Result	Remark
FDISK (FAT32)		PASS	
Install Win 98		PASS	
Format FDD		PASS	
Diskcopy		PASS	
Large file Copy		PASS	
USB device test		PASS	
Trend Anti-Virus Install & Test		PASS	
Device Management check (No Caution)		PASS	
Sound/VGA/LAN IRQ change (PnP function)		PASS	
VGA Resolution/Color change		PASS	
Install Office 97		PASS	
Auto Shutdown (system power off)		PASS	
Defrag test		PASS	
LS-120/ZIP install & working		PASS	
Norton Utility 3.0		PASS	
CheckIt 98		PASS	
Qaplus 7.1 for Win 98		PASS	
Year 2000 test		PASS	
DVD Video CD play (name: BATMAN & ROBIN)		PASS	
Video CD play (name: TOP GUN)		PASS	
Drive Converter (FAT32)		PASS	
PM function by WIN98 (H/W)		PASS	
GAME play (name: TOMB RAIDER II		PASS	
WinStone 98/99		PASS	
WinBench 98/99		PASS	
3D Winbench 98/99		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 95 OSR2.5	950C	English	Microsoft	Pass
	950C	Chinese	Microsoft	Pass
MS Windows 98	1998	English	Microsoft	Pass
MS Windows 98 SE	4.10.2222A	English	Microsoft	Pass
	4.10.2222A	Chinese(trad)	Microsoft	Pass
	4.10.2184.1	Chinese(simp)	Microsoft	Pass
MS Windows 98 OPK	4.10.1998	German	Microsoft	Pass
	4.10.1998	Japanese	Microsoft	Pass

	4.10.1998	Portugal	Microsoft	Pass
	4.10.1998	Chinese(trad)	Microsoft	Pass
	4.10.1998	Chinese(simp)	Microsoft	Pass

9.1.2 Microsoft Windows 2000:

Test Configuration:

CPU Intel Pentium III 750MHz ☒Intel
Memory SIEMENS 128MB (HYB39S64800AT-8) **Total: 256 MB** ☒PC100 ☒PC133
HDD Maxtor 92049U4 20.4GB IDE ☒PIO4 ☒UDMA/33 ☒UDMA/66
Channel: ☒PM ☒PS ☒SM ☒SS
VGA Creative Geforce Pro ☒PCI_Slot:____. ☒AGP
Sound Creative Sound Blaster Live! ☒ISA_Slot:____. ☒PCI_Slot: : 3
CD-ROM ASUS CD-S400/A 40X IDE **Channel:** ☒PM ☒PS ☒SM ☒SS
Mouse Microsoft IntelliMouse Mouse ☒COM ☒PS/2

Test Item	Result	Remark
Install Win 2000 with NTFS (boot from CD)	PASS	
Format FDD	PASS	
Cool boot 2 times under every combination	PASS	
Reboot 2 times under every combination	PASS	
VGA Resolution/Color change (800x600x32bit / 1024x768x16bit)	PASS	
Auto Shutdown (system power off)	PASS	
Defrag test	PASS	
DVD Video CD play (name: <u>BATMAN & ROBIN</u>)	PASS	
PM function by Win2000 (H/W & Time out & Stand by)	PASS	
Sound/VGA/LAN IRQ change (PnP function)	PASS	
Install Office 2000	PASS	
GAME play (name: <u>TOMB RAIDER II</u>)	PASS	
WinStone 99	PASS	
CC WinStone 2000	PASS	
WinBench 99	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	5.00.2195	English	Microsoft	Pass

9.1.3 Microsoft Windows NT 4.0 + Service Pack 6:

Test Configuration:

CPU Intel Pentium III 700MHz ☒ Intel
Memory SEC 128MB (KM48S8030BT-GH) **Total: 384 MB** ☒ PC100 ☒ PC133
HDD Quantum Fireball CX 10.2GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA Creative TNT2 Ultra 32MB SDRAM ☒ PCI_Slot: ____ ☒ AGP
Sound Creative PCI 64 ☒ ISA_Slot: ____ ☒ PCI_Slot: : 2
CD-ROM Acer 650P 50X IDE **Channel:** ☒ PM ☒ PS ☒ SM ☒ SS
Mouse Logitech Mouse+ Mouse ☒ COM ☒ PS/2

Test Item	Result	Remark
Install Win NT (NTFS/FAT)	PASS	
Format FDD	PASS	
Diskcopy	PASS	
IDE Bus Master install	PASS	
VGA Resolution/Color change	PASS	
Shutdown	PASS	
Shutdown & Restart	PASS	
LS-120/ZIP install & working	PASS	
WinStone 99	PASS	
WinBench 99	PASS	
BAPCO for Win NT 4.0 (SYSmark32)	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
Windows NT Workstation	4.0	English	Microsoft	Pass
	4.0	Japanese	Microsoft	Pass
	4.0	German	Microsoft	Pass
	4.0	French	Microsoft	Pass
	4.0	Chinese	Microsoft	Pass

Windows NT Workstation Service Pack	5.0	English	Microsoft	Pass
	6.0	English	Microsoft	Pass

9.1.4 IBM OS/2 4.0:

Test Configuration:

CPU Intel Pentium III 800MHz ☒ Intel
Memory NEC 64MB (D4564841G5-A75-9JF) Total: 128 MB ☒ PC100 ☒ PC133
HDD Quantum Fireball CX 13GB IDE ☒ PIO4 ☒ UDMA/66
Channel: ☒ PM ☒ PS ☒ SM ☒ SS
VGA Creative TNT2 Ultra 32MB SDRAM ☒ PCI_Slot: ___. ☒ AGP
Sound Creative PCI64 ☒ ISA_Slot: 1. ☒ PCI_Slot: : 2
CD-ROM Lite-On LTN-403L 40X IDE Channel: ☒ PM ☒ PS ☒ SM ☒ SS
Mouse Logitech Mouse+ Mouse ☒ COM ☒ PS/2

Test Item	Result	Remark
Install OS/2 (HPFS)	PASS	
Format FDD	PASS	
XCOPY	PASS	
Diskcopy	PASS	
DOS Windows	PASS	
OS/2 Windows	PASS	
PM function (H/W & BIOS)	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 tested.

Operating System	Version	Language	Company	Status
IBM OS/2 Warp	4.0	English	IBM	Pass

9.1.5 LINUX :

Test Configuration:

CPU Intel Pentium III 600MHz ☒ Intel

Memory NEC 64MB (D4564841G5-A75-9JF) **Total: 128 MB** ☒PC100 ☒PC133
HDD Fujitsu MPE3102AT 10.2GB IDE ☒PIO4 ☒UDMA/66
Channel: ☒PM ☒PS ☒SM ☒SS
VGA ELSA ERAZOR II 16MB SDRAM ☒PCI_Slot: ___. ☒AGP
CD-ROM TEAC CD-540E 40X IDE **Channel:** ☒PM ☒PS ☒SM ☒SS
LAN Realtek RTL8139B 10/100 Etherlink ☒PCI_Slot: 2 .
Mouse Logitech Mouse+ Mouse ☒COM ☒PS/2

Test Item	Result	Remark
Install Linux	PASS	
Format FDD	PASS	
Connect to Internet	PASS	
HDD Bench V0.14 (Test tools)	PASS	
Bonnie. (Test tools)	PASS	

The board is tested to ensure that it runs a complete a range of Operating Systems.

Operating System	Version	Language	Status
Red Hat	6.1	English	Pass
Open Linux	2.3	English	Pass

9.1.6 Microsoft Windows ME:

Test Configuration:

CPU Intel Pentium III 800MHz ☒Intel
Memory Micron 64MB (MT48LC8M8A2-75B)**Total: 128 MB** ☒PC100 ☒PC133
HDD IBM DTLA-307060 61.5GB IDE ☒PIO4 ☒UDMA/33 ☒UDMA/66
Channel: ☒PM ☒PS ☒SM ☒SS
VGA ASUS AGP-V3800 32MB SDRAM ☒PCI_Slot: ___. ☒AGP
Sound YAMAHA 744 ☒ISA_Slot: ___. ☒PCI_Slot: : 3
CD-ROM Toshiba SD-M1202 4.8X IDE DVD **Channel:** ☒PM ☒PS ☒SM ☒SS
Mouse Microsoft IntelliMouse Mouse ☒COM ☒PS/2

Test Item	Result	Remark
FDISK (FAT32)	PASS	
Install OS	PASS	

Format FDD	PASS	
Device Management check (No Caution)	PASS	
VGA Resolution/Color change	PASS	
Large file Copy (one file Over 500MB)	PASS	
Install Office 2000	PASS	
Media Player 7.0 (play MIDI/MP3/CD Audio)	PASS	
LS-120/ZIP install & working	PASS	
VCD/DVD play (name: PooDEL Springs)	PASS	
Power Management	PASS	
Hibernate (Suspend To Disk)	PASS	
System Restore	PASS	
WinStone 99 (Business WS99)	PASS	
WinBench 99 (BD/BG/CPU/FPU/HD/HG)	PASS	
3D Winbench 2000 (3D Quality/3D Winmark)	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

9.2 Software Applications

Item	Descriptions	Version	O.S.	Language	Status
Suites	MS Office 97 for Windows	7.0	Windows 95	English	Pass
	MS Office 2000		Windows 95/98	Chinese	Pass
		9.0.2720	Windows 95/98	English	Pass
Communication	BITWare	3.30.10	Windows 95/98	English	Pass
	WinFAX Pro for Win 95	4.0	Windows 95/98	English	Pass
	LapLink	7.0A	Windows 95	English	Pass



	Norton Anywhere	1.0	Windows	English	Pass
Database	FoxPro Microsoft	6.0	Windows	English	Pass
Graphics	Corel Draw	9.0	Windows 95	English	Pass
	MS PowerPoint	4.0	Windows	English	Pass
	Photo Shop Pro	3.05	Windows 95	English	Pass
Presentation Program	MS PowerPoint	7.0	Windows 95	English	Pass
	MS Visual Basic	4.0	Windows 95	English	Pass
	MS Visual C++	6.0	Windows 95/98	English	Pass
	Borland Delphi	4.0	Windows 95	English	Pass
Diagnostic Utility	Bapco 4.0 for Win NT	4.0	Windows NT	English	Pass
	ZD 3D Winbench 99	1.2	Windows 95/98	English	Pass
	ZD Winstone 99	1.2	Windows 95/98	English	Pass
	QAPLus	5.52	DOS	English	Pass
	AMIDdiag	6.0	DOS	English	Pass
	Landmark(Speedcom)	2.0	DOS	English	Pass
	Check IT Pro	5.01	Windows 95/98	English	Pass
	CheckIt 98		Windows 95/98	English	Pass
Tools	Norton Utility 2000		Windows 98	English	Pass
	Norton Ghost 2000	6.0	DOS,Win 9X	English	Pass
	PartitionMagic 4.0	4.0	DOS,Win 9X	English	Pass
Scan	PC-cillin 98 Plus	4.1	Windows 95/98	English	Pass
	Norton Antivirus	5.0	Windows 95/98	English	Pass
Internet	Netscape	4.6	Windows 95	English	Pass
	Internet Explore	4.0	Windows 95/98	English	Pass
		5.0	Windows 95/98	English	Pass
CD Title Game	3D Vltra Pin Ball	1.0	Windows 95	English	Pass
	Duke Nukem 3D	1.0	DOS	English	Pass
	Mech Warrior2	1.0	Windows 95	English	Pass
	AH-64D longbow	1.0	DOS	English	Pass
	NFL Football Trivia Challenge	1.0	DOS	English	Pass
	Wing Commander III	4.0	DOS	English	Pass
	Poker Cowboy Casino MPEG Version	1.0	Window 95	English	Pass
	MDK (Exclusive North American Version)	1.0	Window 95	English	Pass
	Master of Orion II Battle at Antares	1.0	Window 95	English	Pass
	The Lion King	1.0	Window 95	English	Pass
	DIABLO BLIZZARD (CD)		Win95 / NT4.0	English	Pass
	WARCRAFT II TIDES OF DARKNESS		DOS/WIN95	English	Pass
	DOOM II	1.0	Window 95	English	Pass
	War Wind		Window 95	English	Pass
	Magic 2 Carpet		Window 95	English	Pass
	YAMARAJA		Window 95	English	Pass
	TOMB RAIDER II		Window 95	English	Pass
	Lands of Lore II		Window 95	English	Pass

The Magic School Bus			English	Pass
Flight Simulator 98		Window 95	English	Pass
Dagger fall		Window 95	English	Pass
Quake II		Window 95	English	Pass
Test Drive 4		Window 95	English	Pass
AGE of EMPIRES		Window 95	English	Pass
Mech Warrior 2 Mercenaries			English	Pass
Blood & Magic		DOS/WIN95	English	Pass
Wing Commander III		DOS/WIN95	English	Pass
Wing Commander IV		Window 95	English	Pass
Descent II			English	Pass
TOMB Raider III		Window 95/98	English	Pass
AGE of EMPIRES(Expansion)		Window 95/98	English	Pass
Moto Racer 2		Window 95/98	English	Pass
Need for Speed III		Window 95/98	English	Pass
Klingon Honor Gurd		Window 95/98	English	Pass
F-15		Window 95/98	English	Pass
SIM City 3000		Window 95/98	English	Pass
Baldur's Gate		Window 95/98	English	Pass
STAR WARS ROGUE SQUADRON 3D		Window 95/98	English	Pass
X-WING COLLECTOR SERIES		Window 95/98	English	Pass
TUROC SEED OF EV 2		Window 95/98	English	Pass
Lands of Lore III		Window 95/98	English	Pass
Popvlovs		Window 95/98	English	Pass
Need For Speed -High Stakes		Window 95/98	English	Pass
Civilization		Window 95/98	English	Pass
DESCENT III		Window 95/98	English	Pass
Starcraft		Window 95/98	English	Pass
Starcraft – Expansion Set(Brood War)		Window 95/98	English	Pass
TIBERIAN SUN		Window 95/98	English	Pass
Flight Unlimited III		Window 98	English	Pass
Black Moon Chronicles		Window 98	English	Pass
Unreal – Return to NA Pali		Window 98	English	Pass
Discworld NOIR		Window 98	English	Pass
Return to Krondor		Window 98	English	Pass
DRAKAN – Order of the Flame		Window 98	English	Pass
Outcast		Window 98	English	Pass
Age of Empires II		Window 98	English	Pass
Might and Magic VII – For Blood and Honor		Window 98	English	Pass
TOMB RAIDER 4		Window 98	English	Pass
QUAKE III – ARENA		Window 98	English	Pass



	Final Fantasy VIII		Window 98	English	Pass
	DELTA FORCE II		Window 98	English	Pass
	FIFA 2000		Window 98	English	Pass
	TRIGGER		Window 98	English	Pass

Test Engineer:

BIOS: Benson Shen

OS: Leon Liang

I/O : Peter Churg

Audio: Brad Su

Reliability: Peter Churg

Compatibility: Scott Lin



Logo: *Joy Tsai*

Check by: *Lion Liou*

Ownership: *Benson Shen*