

FIC VC19G PCI/AGP SYSTEM BOARD BOARD LEVEL COMPATIBILITY TEST REPORT

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Supervisor	Tester

FIC Research & Development Department



Revision History

Document Release	Date	Change Item	ECN
Revision 1.00	12/02/2002	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 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 : VC19G PCB Rev 1.2
Product Name : Intel 845GE Based Mainboard
System BIOS : Award BIOS Version IET41
PCI IDE : Internal PCI Mastre dual IDE
I/O : Winbond W83627HF-AW

3. Mainboard CPU Supports:

Intel : (Celeron/L2 cache 128KB)

Intel Processors	FSB	Package	Status
Celeron 1.7GHz	400	FC-PGA2	Pass
Celeron 1.8GHz	400	FC-PGA2	Pass
Celeron 1.9GHz	400	FC-PGA2	Pass
Celeron 2.0GHz	400	FC-PGA2	Pass
Celeron 2.1GHz	400	FC-PGA2	Pass
Celeron 2.2GHz	400	FC-PGA2	Pass

Intel : (Willamette/L2 cache 256KB)

Intel Processors	FSB	Package	Status
Pentium 4 1.4GHz	400	FC-PGA2	Pass
Pentium 4 1.5GHz	400	FC-PGA2	Pass
Pentium 4 1.6GHz	400	FC-PGA2	Pass
Pentium 4 1.7GHz	400	FC-PGA2	Pass
Pentium 4 1.8GHz	400	FC-PGA2	Pass
Pentium 4 1.9GHz	400	FC-PGA2	Pass
Pentium 4 2.0GHz	400	FC-PGA2	Pass

Intel : (Northwood/L2 cache 512KB)

Intel Processors	FSB	Package	Status
Pentium 4 1.6GHz	400	FC-PGA2	Pass
Pentium 4 1.73GHz	533	FC-PGA2	Pass
Pentium 4 1.8GHz	400	FC-PGA2	Pass
Pentium 4 2.0GHz	400	FC-PGA2	Pass
Pentium 4 2.2GHz	400	FC-PGA2	Pass
Pentium 4 2.26GHz	533	FC-PGA2	Pass
Pentium 4 2.4GHz	400/533	FC-PGA2	Pass
Pentium 4 2.5GHz	400	FC-PGA2	Pass
Pentium 4 2.53GHz	533	FC-PGA2	Pass
Pentium 4 2.66GHz	533	FC-PGA2	Pass
Pentium 4 2.8GHz	533	FC-PGA2	Pass
Pentium 4 3.06GHz	533	FC-PGA2	Pass

4. System Specification for Hardware and Software Utilities

The mainboard hardware portion was configured as follows :

Item	Description
System Core Logic	Intel 845GE (82845GE)+ICH4(82801DB)
System Cache	128/256/512KB Pipeline Burst SRAM Built-in CPU
System Memory	DDR200/266/333 (PC1600/2100/2700) Support
	Maximum : Total 2GB DDR DRAM
	3 DIMM slots for 184 pins DDR SDRAM Module
System Slots	1 AGP and 6 PCI slots
VGA	Intel 845GE Video support AGP 4X mode
Audio	Intel AC'97 Audio with AD1980 codec
Serial ATA(Optional)	Silicon Image Sil3112A
LAN	Realtek RTL8100BL 10/100 LAN Chip
LPC	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	Wake On LAN / Wake On Ring
3	RTC Alarm Function
4	H/W Monitoring (CPU/System TEMP, All FAN speed, Voltage)
5	NOVUS II
	LogoGenie (for Win 98 SE/ME only)
	FirstAID (H/W monitor)
	BIOS Easy Kit
	BIOS Flash Protect (Guardian feature)
6	Ultra ATA-33/66/100 Enhanced IDE Interface
7	Onboard AD1980 codec AC'97 Audio support 5.1 Channel
8	Onboard Realtek RTL8100BL 10/100 LAN
9	Onboard Silicon Image Sil3112A Serial ATA support RAID 0/1
10	USB 1.1/2.0 Function (Front/Rear)
11	Power Failure feature
12	Hyper Threading Technology support for Intel P4 3.06GHz CPU above
13	Support CPU over clock Adjustment
14	Support CPU/AGP Voltage Adjustment

4.2 Main Software Utilities :

Num.	Driver Description	Version
1	Intel Chipset Software Install Utility	4.20.1006
2	Intel 845GE Video driver for Win XP/2000	6.13.01.3205
3	Intel 845GE Video driver for Win 98 SE/ME	4.13.01.3205
4	Intel 845GE Video driver for Win NT 4.0	4.03.1381.3205
5	Analog Devices AD1980 AC'97 codec driver	5.12.01.3520
6	Realtek RTL8100BL LAN driver	5.504.613.2002
7	Silicon Image Sil3112A Serial ATA Base Driver	1.0.0.22
8	Award BIOS Flash ROM Utilities	8.20A

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	PW_LED	Open
IDE LED Connector		HD_LED	Open
Reset Switch		RST	Open
Remote Power Switch		PW_SW	Open
CPU FAN Connector	CPU_FAN		Open
North Bridge FAN Connector	CHIP_FAN		Open
Chassis FAN Connector	SYS_FAN		Open
Clear CMOS	CLR_CMOS		1-2
IR interface	IR		Open
CD_IN Connector (RGGL)	CD_IN		Open
AUX_IN Connector	AUX_IN		Open
Front Audio Connector	F_Audio		5-6,9-10
5.1 Channel Audio Connector (For FIC A73 Audio bracket)	5.1_Audio		Open
Front USB Connector	USB4/5		Open
COM2 Connector	COM2		Open
Wake On LAN	WOL		Open
Serial ATA Connector	SATA1,SATA2		Open



6. Stability Test

6.1 CPU Over Clock Test:

System Configuration	
CPU : Intel P4 2.4GHz (FSB533)	FDD : TEAC FD-235HG 1.44MB
Cache Memory : 512KB	Audio : Onboard AD1980 AC'97 Audio
Memory : Elixir DDR266 256MB X 2	LAN : Onboard Realtek 8100BL
HDD (ATA/100) : IBM IC35L120 120GB	Mouse : Microsoft PS/2 mouse
VGA : Onboard Intel 845GE VGA	PowerSupply : Seventeam ST-350GL ATX 350W
DVD-ROM : NEC DV-5800A 16X DVD	O.S. Environment : Windows XP/Home Edition

NO.	Over clock level		Test Result				
	FSB	CPU ID	Cool boot	Install OS	S3	Winstone 2001	3D Mark2001
1	544MHz	2.44GHz	Pass	Pass	Pass	58.0	1559
2	560MHz	2.52GHz	Pass	Pass	Pass	60.2	1600

6.2 Full Loading Test: (1days)

System Configuration	
CPU : Intel P4 2.53GHz (FSB533)	PCI 1 : Tekram DC390U2W SCSI
Cache Memory : 512KB	PCI 2 : Realtek RTL8139B LAN
Memory : KingMax DDR266 256MB x 2	PCI 3 : Creative Sound Blaster Live Audio
HDD1 (ATA/100) : IBM IC35L120 120GB (PM)	PCI 4 : Aztech MDP7800-U PCI modem
HDD2 (ATA/100) : Seagate ST340810 40GB (SM)	PCI 5 : Adaptec ASC-29160 SCSI
DVD-ROM : Aopen DVD1648 16X (PS)	PCI 6 : Accton EN12070-TX LAN
DVD-ROM : NEC DV-5800A 16X (SS)	Audio : Onboard AD1980 AC'97 Audio
VGA : Onboard Intel 845GE VGA	LAN : Onboard Realtek 8100BL
FDD : TEAC FD-235HG 1.44MB	PowerSupply : Seventeam ST-350GL 350W
Mouse : Microsoft PS/2 mouse	O.S. Environment : Windows XP/Home Edition

Test Result						
BIOS detect	Install OS	All driver install	S3	CC WS 2002	3D Mark 2001 SE	Stress burn in
Pass	Pass	Pass	Pass	34.5	1538	Pass

6.3 PCB Cool Boot Test: (12 hours)

System Configuration	
CPU : Intel P4 1.70GHz (FSB400)	FDD : TEAC FD-235HG 1.44MB
Cache Memory : 256 K	PowerSupply : Green An ENP-0735 350W
Memory : Transcend DDR266 256MB x 2	
VGA : Onboard Intel 845GE VGA	

Test Result	
Cool Boot (over 600 times)	Pass

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

Software Name	Duration	Result
CC Winstone 2002 v1.0.1	12hr.	<i>Pass</i>
Test Configurations for Win XP	Intel Pentium 4 2.40GHz (Northwood/FSB533) IBM IC35L120 ATA/100 120GB HDD Seitec 512MB DDR266 Memory. (Seitec) X 2 Onboard Intel 845GE VGA	
Winstone 2001 v1.0.3	12hr.	<i>Pass</i>
Test Configurations for Windows 2000	Intel Pentium 4 2.40GHz (Northwood/FSB533) WD Caviar 1200JB ATA/100 120GB HDD Apacer 256MB DDR266 Memory.(Mosel) x 2 Onboard Intel 845GE VGA	
BCM	12hr.	<i>Pass</i>
Test Configurations for Windows ME	Intel Pentium 4 2.26GHz (FSB533) IBM IC35L040 ATA/100 40GB HDD Transcend 512MB DDR266 Memory.(Winbond) x 1 Onboard Intel 845GE VGA EPO DVD-8216 16X IDE DVD-ROM	
3D MARK 2001 SE	12hr.	<i>Pass</i>
Test Configurations for Windows XP	Intel Pentium 4 2.8GHz (FSB533) WD Caviar 1200JB ATA/100 120GB HDD Apacer 128MB DDR266 Memory.(Nanya) x 3 Onboard Intel 845GE VGA	
DVD Play	12hr.	<i>Pass</i>
Test Configurations for Windows XP	Intel Pentium 4 2.40GHz (Northwood/FSB533) IBM IC35L120 ATA/100 120GB HDD Apacer 512MB DDR266 Memory.(Infineon) x 2 Onboard Intel 845GE VGA NEC DV-5800A 16X IDE DVD-ROM DVD Title: Deep Blue Sea	



8. Hardware Compatibility Test Suite

8.1 Memory

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

☒ Win 2000 + SP3 Ver: 5.00.2195

CPU Intel Pentium 4 2.8GHz (FSB533)

☒ Intel

HDD WD Caviar 800BB 80GB IDE

☐ ATA/66 ☒ ATA/100

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

VGA Intel 845GE VGA

☒ Onboard ☐ AGP 4X

CD-ROM AOpen DVD-1648 16X DVD

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Sound AD1980 AC'97

☐ PCI Slot: ☒ On board

LAN Realtek RTL8100BL

☐ PCI Slot: ☒ On board

Mouse Microsoft IntelliMouse PS/2 Mouse

☐ COM ☒ PS/2

The following PC2100/2700 DDR DRAM module test ZD CC Winstone 2002/3D Mark 2001 SE under Windows XP/2000 and run Memtest 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	IC Part No.	Size	Side	Module No.
Micron	MT46V32M8-75	512MB	D	MT16VDDT6464AG-265B1
Crucial	MT46V16M8-75A (Micron)	256MB	D	CT3272Z265.18T
Hynix	HY5DU28822AT-H	256MB	D	HYMD132645 A8-H
Samsung	K4H280838B-TCB0	256MB	D	M368L3313BT1-CB0
	K4H560838D-TCB3	256MB	S	M368L3223DTL-CB3
	K4H560838B-TCB0	512MB	D	M368L6423BT1-CB0Q0
PQI	PQ6D168S75-7	256MB	D	MD6456UPS
Apacer	NT5DS16M8AT-7K (Nanya)	128MB	D	77.10303.542
	NT5DS16M8AT-7K (Nayna)	256MB	D	77.10203.540
	K4H280838B-TCB0 (Samsung)	128MB	D	77.10304.460
	K4H280838D-TCB0 (Samsung)	256MB	D	77.10204.460
	K4H280838D-TCB0 (Samsung)	512MB	D	77.10704.460
	V58C2128804SAT7 (Mosel)	128MB	S	77.10303.562
	V58C2128804SAT7 (Mosel)	256MB	S	77.10203.560
	HYB25D128800AT-7(Infineon)	128MB	D	77.10203.110
	HYB25D256800AT-7(Infineon)	256MB	D	77.10703.110
	W942508AH-7 (Winbond)	512MB	D	77.10703.580
Elixir	N2DS25680AT-75B	256MB	S	M2U25664DS88AOG-75B
	N2DS12880AT-75B	256MB	D	M2U25664DS88AOG-75B
KingMax	KDL684T4A2A-07A	128MB	S	MPDA82D-68KX2
	KDL684T4A2A-07A	256MB	D	MPDB62D-68KX2
Transend	NT5DS16M8AT-7K (Nanya)	128MB	S	TS16MLD64V6D5
	NT5DS16M8AT-7K (Nanya)	256MB	D	TS32MLD64V6D5
	K4H280838C-TCB0 (Samsung)	256MB	D	
	V58C2128804SAT7 (Mosel)	256MB	D	TS32MLD64V6D5
	W942508AH-75 (Winbond)	512MB	D	
Infineon	HYB25D128800AT-7	128MB	D	HYS64D16000GU-7-A
	HYB25D256800AT-7	256MB	D	HYS64D32000GU-7-A

	HYB25D256800AT-7	512MB	D	HYS64D64020GU-7-A
Kingston	NT5DS16M8AT-7K (Nanya)	256MB	D	KVR266X64C25/256
	W942508AH-75 (Winbond)	256MB	S	KVR266X64C25/256
	W942508AH-75 (Winbond)	512MB	D	KVR266X64C25/512
TwinMOS	HY5DU28822AT-K	256MB	D	
SEITEC	DDR32M8AT-7 (SEITEC)	512MB	D	184DR512M638

8.1.2 DDR DRAM Module (DDR333/PC2700)

Vender	IC Part No.	Size	Side	Module No.
Nanya	NT5DS32M8AT-7K	256MB	S	NT256D64S88A0G-6
Pan	K4H560838C-TCB3(Samsung)	256MB	S	M368L3223CTL-CB3
KingMax	KDL684T4A2A-05	128MB	S	MPMA82D-68KX3
	KDL684T4A2A-05	256MB	D	MPMB62D-68KX3
	KDL684T4AA-60	256MB	D	MPMB62D-68KX3
Transcend	K4H560838C-TCB3(Samsung)	256MB	S	TS32MLD64V3F5
	K4H560838C-TCB3(Samsung)	512MB	D	TS64MLD64V3F5
	W942508BH-6 (Winbond)	512MB	D	TS64MLD64V3F5
Infineon	HYB25D256800BT-6	256MB	S	HYS64D32000GU-6-B
Apacer	K4H560838C-TCB3(Samsung)	512MB	D	77.10728.460
KingSton	HYB25D256809AT-6 (Infineon)	256MB	S	KVR333X64C25/256
	NT5DS32M8AT-6 (Nanya)	512MB	D	KVR333X64C25/512
	W942508AH-6 (Winbond)	512MB	D	KVR333X64C25/512

8.2 Add-on Cards

8.2.1 Display Adapter Products

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 2.8GHz (FSB533) ☒ Intel

HDD WD Caviar 1200JB 120GB IDE ☒ ATA/66 ☒ ATA/100

Memory PAN 256MB(Samsung) Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM SONY DDU1211 12X IDE DVD Total: 768 MB ☐ PC2100 ☒ PC2700

Sound AD1980 AC'97 Channel: ☐ PM ☐ PS ☒ SM ☐ SS

LAN Realtek RTL8100BL ☐ PCI_Slot: ☒ On board

Mouse Logitech MouseMan Mouse ☐ PCI_Slot: ☒ On board

☐ COM ☒ PS/2

The following AGP 4X VGA cards test 3DMark 2001 SE/Quake III Anera/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 AGP Display Adapter Products

Vendor	VGA Chip	Product Description	Driver version
Leadtek	GeForce256	Winfast GeForce256	5.13.01.2183
	GeForce2 MX	Winfast GeForce2 MX	6.13.10.3082
	GeForce2 GTS	Winfast GeForce2 GTS	5.13.01.2183
	Geforce3	WinFast Geforce3	6.13.10.2832
	GeForce4 MX 420	A170 TH	6.13.10.3082
	GeForce4 MX 440	A170 DDR TD	6.13.10.3100
	GeForce4 Ti 4400	A250 TD	6.13.10.3082
	GeForce4 Ti 4200	A250 LE TD	6.13.10.3100
	GeForce4 Ti 4600	A250 Ultra TD	6.13.10.2832
Matrox	MGA-G450	Millennium G450	5.12.01.1860
	MGA-G550	Millennium G550	5.13.01.1360
ATI	Rage 128 Pro	XPert 2000 Pro	6.13.3279
	Radeon	Radeon	6.13.10.6166
	Radeon VE	Radeon VE	6.13.10.6166
	Radeon	All-In-Wonder Radeon	6.13.10.6166
	Radeon 7500	Radeon 7500	6.13.10.6166
	Radeon 8500 LE	Radeon 8500 LE	6.13.10.6166
	Radeon 8500	Radeon 8500	6.13.10.6166
	Radeon 8500	All-In-Wonder Radeon 8500 DV	6.13.10.6166
	Radeon 9000 Pro	Radeon 9000 Pro	6.13.10.6102
FIC	Radeon 7000	A70L	6.13.10.6166
	Radeon 9000	A91L	6.13.10.6166
	Radeon 9000	AT009LE	6.13.10.6166
	Radeon 9000	AT009	6.13.10.6166
Gigabyte	Radeon 9700 Pro	MAYA II R9700 Pro	6.13.10.6143
Triplex	SiS Xabre 400	Xabre PRO	6.13.10.3030
ASUS	TNT2 Pro	AGP-V3800 Pro	6.13.10.3082
	GeForce 256	AGP-V6600	6.13.10.3082
	GeForce256 DDR	AGP-V6800	6.13.10.2940

	GeForce2 MX	AGP-V7100	6.13.10.2940
	GeForce2 GTS	AGP-V7700	6.13.10.3082
	GeForce2 GTS	AGP-V7700 Deluxe	6.13.10.3082
	GeForce2 Ti200	AGP-V7700 TI	6.13.10.2958
	GeForce3	AGP-V8200 Deluxe	6.13.10.2958
	GeForce3 Ti200	AGP-V8200 T2 Deluxe	6.13.10.2958
	GeForce3 Ti500	V8200 T5 Deluxe (TV out)	6.13.10.2958
	GeForce4 MX 400	V8170 DDR(TV out)	6.13.10.3082
	GeForce4 Ti 4200	V8420 Deluxe	6.13.10.3082
	GeForce4 Ti 4400	V8440 /TD	6.13.10.2940
	GeForce4 Ti 4600	V8460 Ultra /TD	6.13.10.2800
Compro	GeForce4 MX 420	VideoMate MX / GeForce4 MX 420	6.13.10.3082
	GeForce4 MX 440	VideoMate MX / GeForce4 MX 440	6.13.10.3082
	GeForce4 Ti 4600	VideoMate Cinema/GeForce4 Ti 4600	6.13.10.3082
Visiontek	Geforce3	Geforce3 (TV out)	6.13.10.3082
Top Solution	SiS 315 + 301	3D Thriller	6.13.10.3030
Gainward	GeForce3 Ti200	GeForce3 PowerPack !!!	6.13.10.3082
	GeForce4 MX 420	420T	6.13.10.3082
	GeForce4 Ti 4400	4400XP	6.13.10.3082
	GeForce4 Ti 4600	4600XP	6.13.10.3082
ELSA	Geforce2 Ultra	GLADIAC Ultra	6.13.10.3100
	Geforce2 GTS Pro	GLADIAC Pro	6.13.10.3100
	GeForce2 MX 200	GLADIAC 311	6.13.10.2942
	GeForce2 MX 400	GLADIAC 511	6.13.10.2751
	GeForce2 Ti	GLADIAC 516TV-Out	6.13.10.3100
	GeForce4 MX 440	GLADIAC 517TV-Out	6.13.10.2942
	GeForce4 MX 420	GLADIAC 517SV	6.13.10.3100
	GeForce4 Ti 4200	GLADIAC 525	6.13.10.3100
	GeForce3	GLADIAC 920	6.13.10.3100
	GeForce3 Ti200	GLADIAC 721TV-Out(128MB)	6.13.10.3100
	GeForce3 Ti500	GLADIAC 921 DVI	6.13.10.3100
	GeForce4 Ti 4200	GLADIAC 525	6.13.10.2832
	GeForce4 Ti 4600	GLADIAC 925ViVo	6.13.10.2942

8.2.1.2 PCI Display Adapter Products

The following PCI VGA cards test 3Dmark 2000/WinBench 99 under Windows XP with Win XP default drivers installed and set to the follow condition 800 x 600 x 32bit colors, resolution refresh rate of 85Hz, small font.

Vendor	VGA Chip	Product Description
Creative	S3 Savage 4	3D Blaster Savage 4 PCI VGA
3dfx	Voodoo3 3000	Voodoo3 3000 PCI VGA
Cardex	SiS 6326	Cardexpert 6326

8.2.2 SCSI Adapter Products

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002
☒ Win 2000 + SP3 Ver: 5.00.2195

CPU Intel Pentium 4 2.4GHz (FSB533) ☒ Intel

Memory SEITEC 512MB (SEITEC) Total: 1000 MB ☐ PC1600 ☒ PC2100

VGA Intel 845GE VGA ☒ Onboard ☐ AGP 4X

HDD Seagate ST318452LW 18GB ☐ Ultra II SCSI ☒ Ultra 160

CD-ROM Plextor PX-40Tsi 40X SCSI CD-ROM ☒ Ultra SCSI ☐ Ultra Wide

Sound AD1980 AC'97 ☐ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL ☐ PCI_Slot: ☒ On board

Mouse Logitech MouseMan Mouse ☐ COM ☒ PS/2

The following PCI SCSI cards run CC Winstone 2002/Large files copy(over 500MB) under Windows XP/2000 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-19160	Adaptec Ultra 160 PCI SCSI card 19160	PCI
	ASC-29160N	Adaptec ASC-29160N PCI SCSI card	PCI
	ASC-29160-PK	Adaptec Ultra 160 PCI SCSI card 29160	PCI
	ASC-39160-PK	Adaptec Ultra 160 PCI SCSI card 39160	PCI
Tekram	DC-390U/F/W	Tekram DC-390U/F/W PCI SCSI	PCI
	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 Intel Pentium 4 2.53GHz (FSB533) ☒ Intel

Memory Apacer 128MB(Mosel) Total: 256 MB ☒ PC1600 ☒ PC2100

VGA Intel 845GE VGA ☒ Onboard ☒ AGP 4X

HDD Maxtor 5T060H6 60GB IDE ☒ ATA/100 ☒ ATA/133

CD-ROM NEC DV-5800A 16X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS

LAN Realtek RTL8100BL Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Mouse Microsoft IntelliMouse PS/2 Mouse ☒ PCI_Slot: ☒ On board

☒ 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-4750	Sound Blaster PCI128 Digital
	CT-4790	Sound Blaster PCI512 Digital
	CT-4860	Sound Blaster Live! Platinum
	SB-0090	Sound Blaster Audigy Platinum
Everdata	YAMAHA 754	Orpheua Digital PCI Sound Card
Terratec	Crystal CS4624-CQ	DMX Xfire Soundsystem PCI

8.2.4 PCI Modem Products

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 2.4GHz (FSB533) ☒ Intel

Memory KingMax 128MB(KingMax) Total: 384 MB ☒ PC1600 ☒ PC2100

VGA Intel 845GE VGA ☒ Onboard ☒ AGP 4X

HDD Maxtor 5T060H6 60GB IDE ☒ ATA/100 ☒ ATA/133

CD-ROM Pioneer DVR-104 24X IDE DVD-RW Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound AD1980 AC'97 ☒ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL ☒ 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 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 + SP1 Ver: 2002
☒ Win 2000 + SP3 Ver: 5.00.2195

CPU Intel Pentium 4 2.53GHz(FSB533)

☒ Intel

Memory Apacer 512MB (Samsung)

Total: 512 MB ☒ PC1600 ☒ PC2100

VGA Intel 845GE VGA

☒ Onboard ☒ AGP 4X

SCSI Adaptec ASC-29160N Ultra160 Wide

☒ ISA ☒ PCI_Solt: 4

Sound AD1980 AC'97

☒ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL

☒ PCI_Slot: ☒ On board

Mouse Logitech First Mouse+ Mouse

☒ COM ☒ PS/2

The following SCSI devices run CC WinStone 2002 or copy large file(over 500MB) under Windows XP/2000 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	ST318437LW	Barracuda Ultra160 Wide 18GB
		ST39204LW	Cheetah Ultra160 Wide 9GB
		ST318406LW	Cheetah Ultra160 Wide 18GB
		ST318452LW	Cheetah Ultra160 Wide 18GB
		ST336706LW	Cheetah Ultra160 Wide 36GB
		ST336752LW	Cheetah Ultra160 Wide 36GB
CD-ROM / CD-RW	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
	TEAC	CDR 56S	(24R6W) CD-RW 24X
		CD-532S	Ultra SCSI CD-ROM 32X
		CD-W512S-B82	(32R12W10RW) CD-RW
	Nichimen	CDR-BP3N	(32R12W10RW) CD-RW 32X
	Afreedy	CD-2050S	Ultra SCSI CD-ROM 50X
	YAMAHA	CRW2100S	(40R16W10RW) CD-RW 40X

8.3.2 IDE Fixed Disk Drive Products

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002
☒ Win 2000 + SP3 Ver: 5.00.2195
 CPU Intel Pentium 4 1.7GHz(FSB400) ☒ Intel
 Memory Apacer 512MB (Samsung) Total: 1000 MB ☐ PC1600 ☒ PC2100
 VGA Intel 845GE VGA ☒ Onboard ☐ AGP 4X
 CD-ROM Pioneer DVD-117RD 16X IDE DVD Channel: ☐ PPM ☐ PPS ☒ SM ☐ SS
 Sound AD1980 AC'97 ☐ PCI_Slot: ☒ On board
 LAN Realtek RTL8100BL ☐ PCI_Slot: ☒ On board
 Mouse Logitech First Mouse+ Mouse ☐ COM ☒ PS/2

The following IDE devices test and WinStone 2001/CC Winstone 2002/WinBench 99/Copy large files(over 500MB)under Windows XP/2000 with Win XP/2000 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
	IC35L080AVVA07	82.3GB
	IC35L120AVVA07	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

Samsung	Caviar WD1000BB	100GB
	Caviar WD1200BB	120GB
	Caviar WD1200JB	120GB
	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

* Intel ICH4 South Bridge doesn't support ATA/133 transfer mode, so these ATA/133 HDD run ATA/100.

8.3.3 ATAPI CD-ROM /DVD-ROM Device Product

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 2.4GHz(FSB533) ☒ Intel

Memory Crucial 256MB (Micron) Total: 512 MB ☐ PC1600 ☒ PC2100

VGA Intel 845GE VGA ☒ Onboard ☐ AGP 4X

HDD Maxtor 4W100H6 100GB IDE ☐ ATA/66 ☒ ATA/100

Sound AD1980 AC'97 Channel: ☒ PM ☐ PS ☐ SM ☐ SS

LAN Realtek RTL8100BL ☐ PCI_Slot: ☒ On board

Mouse Logitech TrackmanMarble Mouse ☐ PCI_Slot: ☒ On board

☐ COM ☒ PS/2

The following IDE devices test play VCD or DVD under windows XP with Win XP 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
LITE-ON	LTN-403L	ATAPI CD-ROM 40X UDMA33
	LTN-485S	ATAPI CD-ROM 48X UDMA33
Acer	650P	ATAPI CD-ROM 50X UDMA33
TEAC	CD-540E	ATAPI CD-ROM 40X Mode4
Creative	CD4833E	ATAPI CD-ROM 48X Mode4
YAMAHA	Audio Extractor	ATAPI CD-ROM 52X Mode4
ASUS	CD-S500/A	ATAPI CD-ROM 50X UDMA33
	CD-S520/A	ATAPI CD-ROM 52X UDMA33
Mitsumi	CRMC-FX4820T	ATAPI CD-ROM 48X Mode4
	FX5400W	ATAPI CD-ROM 54X Mode4
LG	CRD-8522B	ATAPI CD-ROM 52X Mode4
SONY	CDU4811	ATAPI CD-ROM 48X UDMA33
AOpen	CD-952E/AKH	ATAPI CD-ROM 52X UDMA33
Genuine	GC-952B	ATAPI CD-ROM 52X UDMA33

8.3.3.2 ATAPI DVD-ROM:

Vendor	Model Name	Product Description
ASUS	DVD-E616	ATAPI DVD-ROM 16X Mode4
Panasonic	SR-8587-B	ATAPI DVD-ROM 16X Mode4
SONY	DDU1211	ATAPI DVD-ROM 12X Mode4
	DDU1621	ATAPI DVD-ROM 16X Mode4
Pioneer	DVD-115	ATAPI DVD-ROM 16X Mode4
	DVD-106S/2	ATAPI DVD-ROM 16X UDMA66
	DVD-116/2	ATAPI DVD-ROM 16X UDMA66
	DVD-117RD	ATAPI DVD-ROM 16X UDMA66
NEC	DV-5700B	ATAPI DVD-ROM 12X UDMA33
	DV-5800A	ATAPI DVD-ROM 16X UDMA33
Acer	DVP1640A	ATAPI DVD-ROM 16X Mode4
BTC	BDV 316B	ATAPI DVD-ROM 16X UDMA33
BenQ	DVD1648A	ATAPI DVD-ROM 16X Mode4
LITE-ON	LTD-163	ATAPI DVD-ROM 16X Mode4
Actima	AD16H	ATAPI DVD-ROM 16X Mode4
AOpen	DVD1648	ATAPI DVD-ROM 16X UDMA66
EPO	DVD-8216	ATAPI DVD-ROM 16X UDMA33
Creative	DVD1242E	ATAPI DVD-ROM 12X Mode4



8.4 Peripherals

8.4.1 Parallel/Serial Port Products (Including IR)

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 2.0GHz(FSB400)

☒ Intel

Memory Transcend 256MB(Mosel)

Total: 512 MB ☐ PC1600 ☒ PC2100

HDD Seagate ST-340824A 40GB IDE

☐ ATA/66 ☒ ATA/100

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM YAMAHA Audio Extractor 52X CD-ROM Channel: ☐ PM ☐ PS ☒ SM ☐ SS

VGA Intel 845GE VGA

☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97

☐ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL

☐ PCI_Slot: ☒ On board

Mouse Logitech TrackMan Marble Mouse

☐ COM ☒ PS/2

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

Vendor	Product Description	Bus I/F
Iomage	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 Intel Pentium 4 1.9GHz(FSB400)

☒ Intel

Memory Micron 256MB (Micron)

Total: 512 MB ☐ PC1600 ☒ PC2100

HDD IBM IC35L040 40GB IDE

☐ ATA/66 ☒ ATA/100

CD-ROM EPO DVD-8216 16X IDE DVD

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

VGA Intel 845GE VGA

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Sound AD1980 AC'97

☒ Onboard ☐ AGP 4X

LAN Realtek RTL8100BL

☐ PCI_Slot: ☒ On board

☐ 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 Intel Pentium 4 2.0GHz(FSB533)

☒ Intel

Memory Hynix 256MB(Hynix)

Total: 512 MB ☐ PC1600 ☒ PC2100

HDD Maxtor 6L040U2 40GB IDE

☐ ATA/66 ☒ ATA/100

CD-ROM BenQ DVD-1648A 16X IDE DVD

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

VGA Intel 845GE VGA

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Sound AD1980 AC'97

☒ Onboard ☐ AGP 4X

LAN Realtek RTL8100BL

☐ PCI Slot: ☒ On board

Mouse Logitech First Mouse+ Mouse

☐ PCI Slot: ☒ On board

☐ 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 (M-BB48)
		USB MouseMan Wheel (M-BA47)
		USB Wheel Mouse (Optical) (M-BD58)
		MouseMan Dual Optical (M-BL63B)
	Microsoft	IM Optical U/P Mouse (X05-48976)
		IM Optical U/P Mouse (X06-25122)
		IM Explorer 3.0 U/P Mouse (X06-25120)
		TrackBall Explorer U/P Mouse (X05-87473)
		Wireless Explorer USB Mouse (X08-12616)
HUB	Belkin	Express Bus F5U001
	SOHOUSB	Unique Energy Saving (4-Port USB Hub)
Camera	Intel	YC72
	IBM	XVP610
	Logitech	QuickCam Web Camera
Keyboard	BTC	8113W
	Jetime	ACK-298H
	Microsoft	Natural Keyboard Pro
Printer	HP	DeskJet 840c
		DeskJet 990cxi
		DeskJet 1220c
	EPSON	Stylus Color 740
		Stylus Color 900
Scanner	EPSON	GT-7000
	HP	ScanJet 4200C
Speaker	YAMAHA	YST-MS35D
MO	OLYMPUS	Turbo MO MINI (MOS3390S)
HDD	Vipower	VP-8058 Mobile USB Adapter
ZIP	iomega	ZIP 250
CD-RW	SONY	Spessa CD-ReWritable Recorder
FDD		Generic USB FDD
GamePad	Logitech	WingMan Extreme USB GamePad
	Microsoft	SideWinder Strategic Commander
	Microsoft	SideWinder Game Voice



Joystick	Logitech	WingMan Formula Force joystick
	Microsoft	SideWinder Precision 2

8.4.3.2 USB 2.0 Devices

Type	Vendor	Description
HUB	Hung	USB 2.0 Hi-Speed Hub
	ATEN	UH-204
HDD	Vipower	VP-8258 Mobile USB HDD Adapter
	Fujitsu	DYNA DISQ 20GB (MMA2200VB)
CD-R/RW	Plextor	PX-S88TU (24R8W8RW)
		PX-W2410TU (40R24W10RW)
	YAMAHA	CRW-70 (24R12W8RW)
Scanner	EPSON	Perfection 2450 Photo
MO	Fujitsu	DYNA MO 1300U2 (MDG3130UB)

8.5 Power Supply Products

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 1.9GHz(FSB400)

☒ Intel

Memory Infineon 256MB(Infineon)

Total: 512 MB ☒ PC1600 ☒ PC2100

HDD WD Caviar 300BB 30GB IDE

☒ ATA/66 ☒ ATA/100

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

CD-ROM EPO DVD-8216 16X IDE DVD

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

VGA Intel 845GE VGA

☒ Onboard ☒ AGP 4X

Sound AD1980 AC'97

☒ PCI Slot: ☒ On board

LAN Realtek RTL8100BL

☒ PCI Slot: ☒ On board

Mouse Logitech TrackMan Marble Mouse

☒ COM ☒ PS/2

The following Power supply devices test Cool/Warm boot, restart and power management under Windows XP with over 5 times.

Vendor	Product Description	Power	AC Input Voltage	Type
DELTA	DPS-250KB A Rev:00	300W	110/220	ATX
	DPS-300KB-1 A Rev:00	300W	110/220	ATX
	DPS-350NB	350W	110/220	ATX
Seventeam	ST-250BLP	250W	110/220	ATX
	ST-250GL	250W	110/220	ATX
	ST-300BLV	300W	110/220	ATX
	ST-350GL	350W	110/220	ATX
Enlight	HPC-340-101	340W	110/220	ATX
ENERMAX	EG301P-VE	300W	110/220	ATX
	EG301P-VE	300W	110/220	ATX
	EG365P-VE	350W	110/220	ATX
Seasonic	SS-250FS	250W	110/220	ATX
	SS-300FS	300W	110/220	ATX
ICute	P4-3000TC v2.03	300W	110/220	ATX
	AL-3000P4	300W	110/220	ATX
Green An	ATX-1125BTA	300W	110/220	ATX
	ENP-0735	350W	110/220	ATX
SD	SD-300W-12V	300W	110/220	ATX
HEC	HEC-300VD-T	300W	110/220	ATX
	HEC-350LD-T	350W	110/220	ATX
HOPELY	ATX-250SE-P4	250W	220	ATX
	ATX-300SE-P4	300W	220	ATX
	ATX-300S	300W	220	ATX
Golden Field	ATX-320WB&P4	300W	220	ATX
? ? QY	QY-300T	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 Intel Pentium 4 2.0GHz(FSB400)

☒ Intel

Memory KingMax 256MB(KingMax)

Total: 512 MB ☒ PC1600 ☒ PC2100

HDD WD Caviar WD600BB 60GB IDE

☒ ATA/66 ☒ ATA/100

VGA Intel 845GE VGA

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

CD-ROM NEC DV-5800A 16X IDE DVD

☒ Onboard ☒ AGP 4X

Sound AD1980 AC'97

Channel: ☒ PM ☒ PS ☒ SM ☒ SS

LAN Realtek RTL8100BL

☒ PCI_Slot: __ ☒ On board

Mouse Microsoft IntelliMouse Mouse

☒ PCI_Slot: __ ☒ On board

☒ 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	
VGA Resolution/Color change	PASS	
Install Office XP	PASS	
Auto Shutdown (system power off)	PASS	
DVD play (name: <i>A Fistful Of Dollars</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 v1.0.2	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 Intel Pentium 4 2.4GHz(FSB533)

Memory Apacer 256MB(Infineon)

HDD IBM IC35L080A 81GB IDE

VGA Intel 845GE VGA

CD-ROM SONY DDU1621 16X IDE DVD

Sound AD1980 AC'97

LAN Realtek RTL8100BL

Mouse Microsoft IntelliMouse Mouse

☒ Intel

Total: 512 MB ☐ PC1600 ☒ PC2100

☐ PIO4 ☐ ATA/66 ☒ ATA/100

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

☒ Onboard ☐ AGP 4X

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

☐ PCI_Slot: __ ☒ On board

☐ 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	
Install Office XP	PASS	
Defrag test	PASS	
DVD play (name: <i>A Fistful Of Dollars</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 DRAM)	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 v1.0.2	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 Intel Pentium 4 2.4GHz(FSB533)

☒ Intel

Memory Apacer 512MB(Winbond)

Total: 1000 MB ☐ PC1600 ☒ PC2100

HDD Maxtor 6L060J3 60GB IDE

☐ ATA/66 ☐ ATA/100 ☒ ATA/133

VGA Intel 845GE VGA

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Pioneer DVD-116 16X IDE DVD

☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

LAN Realtek RTL8100BL

☐ 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	
Device Management check (No Caution)		PASS	
Large file Copy from DVD-ROM (Over 500MB)		PASS	
Install Office XP		PASS	
Defrag test		PASS	
DVD play (name: <i>A Fistful Of Dollars</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	
System Shutdown	Power button	PASS	
	Start → Shut down item	PASS	
WinStone 2001 v1.0.2		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 Intel Pentium 4 2.4GHz(FSB533)

☒ Intel

Memory Samsung 512MB(Samsung)

Total: 1000 MB ☐ PC1600 ☒ PC2100

HDD WD Caviar WD1200BB 120GB IDE

☐ PIO4 ☐ ATA/66 ☒ ATA/100

VGA Intel 845GE VGA

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Panasonic SR-8587-B 16X IDE DVD

☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

LAN Realtek RTL8100BL

☐ PCI_Slot: __ ☒ On board

Mouse Microsoft IntelliMouse Mouse

☐ PCI_Slot: __ ☒ On board

☐ COM ☒ PS/2

Test Item	Result	Remark
Install Win 2000 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	
VGA Resolution/Color change	PASS	
Large file Copy from DVD-ROM (Over 500MB)	PASS	
Install Office XP	PASS	
DVD play (name: <i>A Fistful Of Dollars</i>)	PASS	
Power Management (Stand By function)	Power button	PASS
	Keyboard Sleep Key	PASS
	Start → Stand By item	PASS
	Time Out	PASS
	Power button	PASS
	Keyboard Sleep Key (98keyboard)	PASS
	Start → Stand By item	PASS
	Time Out	PASS
S3 (Suspend To Memory)	Power button	PASS
	Start → Hibernation item	PASS
	Time Out	PASS
Hibernation (Suspend To Disk)	Power button	PASS
	Start → Shut down item	PASS
System Shutdown	Power button	PASS
	Start → Shut down item	PASS
WinStone 2001 v1.0.2	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

**9.1.5 Microsoft Windows NT 4.0 + Service Pack 6:****Test Configuration:**

CPU Intel Pentium 4 2.4GHz(FSB533)

☒ Intel

Memory Micron 512MB(Micron)

Total: 1000 MB ☐ PC1600 ☒ PC2100

HDD IBM IC35L060A 60GB IDE

☐ PIO4 ☐ ATA/66 ☒ ATA/100

VGA Intel 845GE VGA

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Lite-On LTD-163 16X DVD-ROM

☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

Mouse Logitech Mouse+ Mous

☐ PCI_Slot: __ ☒ On board☐ COM ☒ PS/2

Test Item	Result	Remark
Install Win NT with NTFS (boot from CD)	PASS	
Install Service Pack 6.0	PASS	
Format FDD	PASS	
Cool boot 2 times under every combination	PASS	
Reboot 2 times under every combination	PASS	
VGA Resolution/Color change	PASS	
Large file Copy (one file Over 500MB)	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
Windows NT Workstation Service Pack	6.0	English	Microsoft	Pass

* *Windows NT doesn't support "APIC" feature, so Disabled APIC mode in the BIOS before install OS, Please.*

9.1.6 IBM OS/2 4.0:

Test Configuration:

CPU Intel Pentium 4 2.4GHz(FSB533)

☒ Intel

Memory Apacer 256MB (Nanya)

Total: 512 MB ☐ PC1600 ☒ PC2100

HDD Fujitsu MPB3032AT 3.2GB IDE

☐ PIO4 ☒ ATA/33

VGA Matrox Millennium G450

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

CD-ROM Acer DVP 1640A 16X IDE DVD

☒ PCI_Slot: 2 ☐ AGP

Mouse Logitech Mouse+ Mouse

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

☐ COM ☒ PS/2

Test Item	Result	Remark
Install OS/2 (HPFS)	PASS	
Format FDD	PASS	
XCopy	PASS	
Diskcopy	PASS	
VGA Resolution/Color change	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 Power Management and Remote functions are also tested.

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

* AD1980 AC'97 Audio doesn't have driver to support OS/2.

* Onboard Intel 845GE doesn't have driver to support OS/2.



10. Onboard Function Test Suite

10.1 Serial ATA:

10.1.1 RAID 0:

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002

CPU Intel Pentium 4 1.5GHz(FSB400) ☒ Intel

Memory Apacer 256MB(Nanya) Total: 512 MB ☐ PC1600 ☒ PC2100

HDD1 Seagate ST-330013AS 30GB ☒ S_ATA1 ☐ S_ATA2

HDD2 Seagate ST-330013AS 30GB ☐ S_ATA1 ☒ S_ATA2

CD-ROM AOpen DVD1648A 16X IDE DVD Channel: ☐ PPM ☐ PS ☒ SM ☐ SS

VGA Intel 845GE VGA ☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97 ☐ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL ☐ 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	6610 MB/sec	
	High-End Disk WinMark	10100 MB/sec	
CC WinStone 2002 v1.0.1		15.4	
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 Intel Pentium 4 1.5GHz(FSB400) ☒ Intel

Memory Apacer 256MB(Nanya) Total: 512 MB ☐ PC1600 ☒ PC2100

HDD1 Seagate ST-330013AS 30GB ☒ S_ATA1 ☐ S_ATA2

HDD2 Seagate ST-330013AS 30GB ☐ S_ATA1 ☒ S_ATA2

CD-ROM AOpen DVD1648A 16X IDE DVD Channel: ☐ PPM ☐ PPS ☒ SM ☐ SS

VGA Intel 845GE VGA ☒ Onboard ☐ AGP 4X

Sound AD1980 AC'97 ☐ PCI_Slot: ☒ On board

LAN Realtek RTL8100BL ☐ 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	6420 MB/sec	
	High-End Disk WinMark	9910 MB/sec	
CC WinStone 2002 v1.0.1		13.0	
Large file Copy from DVD-ROM (Over 500MB)		PASS	
RAID 1 Function Test		PASS	

10.2 AD1980 AC'97 Codec Audio:

Test Configuration:

OS Ver ☒ Win XP + SP1 Ver: 2002
☒ Win 2000 + SP3 Ver: 5.00.2195

CPU Intel Pentium 4 2.4GHz(FSB533)

☒ Intel

Memory KingMax 256MB(KingMax)

Total: 512 MB ☐ PC1600 ☒ PC2100

HDD Maxtor 5T060H6 60GB IDE

☐ ATA/66 ☒ ATA/100

CD-ROM Actima AD16H 16X IDE DVD

Channel: ☒ PM ☐ PS ☐ SM ☐ SS

VGA Intel 845GE VGA

Channel: ☐ PM ☐ PS ☒ SM ☐ SS

LAN Realtek RTL8100BL

☒ Onboard ☐ AGP 4X

Mouse Logitech First Mouse+ Mouse

☐ PCI_Slot: ☒ On board

☐ 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

* AD1980 5.1CH audio used FIC A73 bracket to test.

**10.3 Intel 845GE Video:****Test Configuration:**

OS Ver ☒ Win XP + SP1 Ver: 2002
☒ Win 2000 + SP3 Ver: 5.00.2195

CPU Intel Pentium 4 2.4GHz(FSB533) ☒ Intel
Intel Pentium 4 2.4GHz(FSB400) ☒ Intel

Memory KingMax 256MB(KingMax) Total: 512 MB ☒ PC1600 ☒ PC2100

HDD Maxtor 4D040K2 40GB IDE ☒ ATA/66 ☒ ATA/100

CD-ROM Creative DVD1242E 12X IDE DVD Channel: ☒ PM ☒ PS ☒ SM ☒ SS

Sound AD1980 AC'97 Channel: ☒ PM ☒ PS ☒ SM ☒ SS

LAN Realtek RTL8100BL ☒ PCI_Slot: ☒ On board

Mouse Logitech First Mouse+ Mouse ☒ PCI_Slot: ☒ On board

Monitor CTX PR705F 17" ☒ COM ☒ PS/2

☒ LCD ☒ CRT

Test Item		Result (CPU)	
		FSB533	FSB400
Windows XP + SP1			
Video driver install		PASS	PASS
ACPI Function	S1	PASS	PASS
	S3(STR)	PASS	PASS
	S4(STD) Hibernate	PASS	PASS
VCD/DVD play		PASS	PASS
Frame Buffer Size 8MB (1024x768x32bit)	3D Mark 2001 SE	1803	1490
	PC Mark 2002	PASS	PASS
Frame Buffer Size 1MB (1024x768x32bit)	3D Mark 2001 SE	1768	1464
	PC Mark 2002	PASS	PASS
Display Quality (Frame Buffer Size 8MB)	800x600x32bit / 60Hz	PASS	PASS
	800x600x32bit / 75Hz	PASS	PASS
	1024x768x32bit / 60Hz	PASS	PASS
	1024x768x32bit / 75Hz	PASS	PASS
	1600x1200x16bit / 60Hz	PASS	PASS
Windows 2000 + SP3			
Video driver install		PASS	PASS
ACPI Function	S1	PASS	PASS
	S3(STR)	PASS	PASS
	S4(STD) Hibernate	PASS	PASS
VCD/DVD play		PASS	PASS
3D Mark 2001 SE (Frame Buffer Size 8MB)		1786	1350
Display Quality (Frame Buffer Size 8MB)	800x600x32bit / 75Hz	PASS	PASS
	1024x768x32bit / 75Hz	PASS	PASS



Test Engineer:

BIOS: Benson Shen

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