



AAEON Technology INC.
ISO-9001/ISO-14001 Certified
Industrial Automation PCs

QE Compatibility Test Plane

Release No : PCM-5896V-T-01

Product Model	PCM-5896V
Product Description	
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : PCM-5896V Rev:A0.2 <input checked="" type="checkbox"/> BIOS: PCM-5896V BIOS Rev:1.0 (09/27/2001) <input type="checkbox"/> Renew product <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Revision change <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Component:

2001-10-05

Issue date

Wenyuan Yang

Assistant
Manager

Lindon Lin

Supervisor

Chasel Wang

Test Engineer

Summary of contents :

QE compatibility test plane of version release record	2
Summary of contents	3
1. Dynamic / Boot_UP Burn_In Test	4-5
A. Dynamic Burn-In Test	4
A-1 Diagnostics Software Burn_In Test.....	4
A-2 Audio Play For Sound Codec Chipset Burn-In Test	4
A-3 LAN Chipset Burn-In Test	5
B. Boot_Up Burn-In Test.....	5
2. Timer Accuracy Test	6-7
A System Clock & RTC Clock Test	6
B. Watchdog Timer Test.....	7
3. Power Consumption / Connector Test	8-9
4. Network HUB / LAN Function Test	9
5. Hardware compatibility	10-23
A. Component Compatibility- CPU.....	10
B. Component Compatibility- DRAM DIMM Module.....	11-12
C. On Board Audio Function Test	13
D. PCI Function(PCI Adapter Card) Test.....	14-15
E. Peripheral Compatibility- HDD / CDROM Device.....	16-17
E-1. Ultra ATA/66/100 Test.....	17
F. USB Function Test.....	18-19
G. Floppy Disk Controller.....	19
H. I/O Peripheral Test.....	20
I. Peripheral Compatibility-Storage Device.....	21
J. Digital Function Test	21
K. Adapter Compatibility – Industry Control Card / PC104 / PC104 Plus Module.....	22
L. On-Board SCSI Function Test	23
6. System Integer Application Test	24
7. BIOS Function Test	25-28
A. Y2K Test.....	25
B. Standard CMOS Setup Test.....	25
C. Boot Sequence Test	25
D. Power Manager Test.....	26
D-1. APM Power Manager Test.....	26
D-2. ACPI Power Manager Test.....	26
D-3. Power On Function Test.....	26
D-4. Wake Up Event Test.....	26
E. CMOS Backup Test.....	26
F. Boot ROM Test.....	26
G. COM Address/IRQ Test.....	27
H. LPT Address/IRQ Test.....	27
I. Hardware Monitor Test.....	28
J. Supervisor / User Password Test.....	28
K. BIOS AWDFLASH Program Test.....	28
8. Performance Test	29-30
9. O.S. Compatibility Test	31-46
A. Linux RedHat7.0 Test.....	31
B. Novell Network O.S./V4.11.....	32
C. Novell Network O.S./V5.0.....	33
D. Windows 95.....	34-35
E. Windows 98SE	36-37
F. Windows ME	38-39
G. Windows NT 4.0.....	40-42
H. Microsoft Windows 98 Hardware Compatibility Test(HCT).....	43
I. Windows 2000.....	44-45
J. DOS and DOS Utility Compatility Testing.....	46

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

Pass: It worked perfectly

Fail: Test failed, and to be modified in the next version

N/A: Outside of specifications or no test equipment

The test report would be tested and updated after version changed.

1. Dynamic / Boot_UP Burn_In Test

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4516821AG5-A10-9NF / PC100 / 32MB
Primary IDE Master	N/A
Primary IDE Slave	N/A
DOC Type	M-System DOC2000 <input type="checkbox"/> 4MB <input type="checkbox"/> 8MB <input checked="" type="checkbox"/> 16MB <input type="checkbox"/> 24MB <input type="checkbox"/> __MB
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Chipset & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

A.Dynamic Burn-In Test:

A-1.Diagnostics Software Burn_In Test:

Test Point:

1. Test items including system, Memory, Display, Keyboard, LPTs W/ loopback, COMs W/ loopback.

Test Condition: Under Temperature 0 °C ~ 60 °C(48 Hours)

Test Program	Result		Note
	Pass	Fail	
Qaplusfe 5.6	✓		Execute Qaplusfe 5.6 Program
AMIDIAG 5.21 [Option]			Execute AMIDIAG 5.21 Program

A-2.Audio Play For Sound Codec Chipset Burn-In Test [N/A] Because 0 °C ~ 60 °C (24 Hours) Testing Fail.

Test Condition : Under Temperature 60 °C (2 Hours)

Test Method	Software Program	Result		Note
		Pass	Fail	
Play MP3 Sound cycle Test	Winamp 2.6			WIN98SE O.S.

Test Condition : Under Temperature 0 °C (2 Hours)

Test Method	Software Program	Result		Note
		Pass	Fail	
Play MP3 Sound cycle Test	Winamp 2.6			WIN98SE O.S.

A-3. LAN Chipset Burn-In Test [N/A] Because 0 °C ~ 60 °C (24 Hours) Testing .

Switch HUB Type:

Test Condition : Under Temperature 60 °C (2 Hours)

Test Method	Software Program	Result		Note
		Pass	Fail	
Play VCD	Media Player			WIN98SE O.S.

Test Condition : Under Temperature 0 °C (2 Hours)

Test Method	Software Program	Result		Note
		Pass	Fail	
Play VCD	Media Player			WIN98SE O.S.

B. Boot_Up Burn-In Test: Operating System Environment :DOS /Windows Mode.

B-1. Test Condition : Under Temperature 0°C ~60°C (24Hours)

Test Method	Actual	Successful	Failure rate	On time	Off Time	Note
Power On/Off (DOS Mode)	1056	972	7.9 %	35 Sec	5 Sec	Allow failure rate under 2/1000
Power On/Off (Windows Mode) [Option]			%	____ Sec	____ Sec	Allow failure rate under 2/1000

B-2. Test Condition : Under Room Temperature [25°C].

Test Method	Actual	Successful	Failure rate	On time	Off Time	Note
H/W Reset 300Times (DOS Mode)	300	300	0 %	35 Sec	5 Sec	
KB Reset 20 Times (DOS Mode)	20	20	0 %			
H/W Reset 300Times (Windows Mode) [Option]			%			
KB Reset 20 Times (Windows Mode) [Option]			%			

2. Timer Accuracy Test

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Primary IDE Master	N/A
Primary IDE Slave	N/A
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Chipset & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

A.System Clock & RTC Clock test

Test Points:

- 1.This test focuses on the system clock & RTC Clock accurately.
- 2.Setups verify: Verify the System Clock and RTC are marked number correctly during 24hrs at the screen.
- 3.Diagnostics: Setups BIOS RTC Timer to marked number 24hrs.
Setups System Clock on MS-DOS 6.22 /Win 98 to marked number 24hrs.

A-1. Environment Setting: MS-DOS 6.22

The Result: Under Temperature 0 ~ 60 °C(Option)

Item Function	Test Times	Margin for error	Acturl	Result		Note
				Pass	Fail	
System Clock	24 hrs	+/-5 sec	Sec			Power On
RTC Clock	24 hrs	+/-3 sec	Sec			Power On

A-2. Environment Setting: Windows 98 SE

The Result: Under Temperature 0 ~ 60 °C(Option)

Item Function	Test Times	Margin for error	Acturl	Result		Note
				Pass	Fail	
System Clock	24 hrs	+/-5 sec	Sec			Power On
RTC Clock	24 hrs	+/-3 sec	Sec			Power On

A-3. Environment Setting: MS-DOS 6.22

The Result: Under Room Temperature 25 °C

Item Function	Test Times	Margin for error	Acturl	Result		Note
				Pass	Fail	
System Clock	24 hrs	+/-5 sec	-8 Sec		✓	Power On
RTC Clock	Static	24 hrs	+/-3 sec	0 Sec	✓	Power Off
	Dynamic	24 hrs	+/-3 sec	-1 Sec	✓	Power On

B. Watchdog Timer test [N/A]**Test Points:**

1. Setups BIOS Watchdog Timer every type Time-out interval.
2. Diagnostics: Can generate a system reset whether on setting time.
3. Attention --Watchdog-IRQ n.

The Result: Under Room Temperature [25°C] / DOS Mode .

Time-out interval	IRQ	Margin for error	Acturl	Result		Note
				Pass	Fail	
10 sec		+/-1 sec	Sec			
20 sec		+/-1 sec	Sec			
30 sec		+/-1 sec	Sec			
40 sec		+/-1 sec	Sec			
1 min		+/-1 sec	Sec			
2 min		+/-1 sec	Sec			
3 min		+/-1 sec	Sec			
4 min		+/-1 sec	Sec			

3 . Power Consumption

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Backplane	N/A
DOC	M-System DOC2000 <input type="checkbox"/> 4MB <input type="checkbox"/> 8MB <input checked="" type="checkbox"/> 16MB <input type="checkbox"/> 24MB <input type="checkbox"/> __ MB
Power Supply	Liemacs LP2-4250F / 250W
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family

A. Operating System Environment :

DOS 6.22	Config.sys	Device=c:\dos\himem.sys dos=high,umb files=35 Buffers=40
	Autoexec.bat	Prompt \$p\$g C:\dos\smartdrv.exe /x

Test Software (DOS Mode):

Test Software	Landmark Speed V.2.0(Speed200.exe)
---------------	------------------------------------

Test Result:

Mode Type	CPU TYPE				Current
	Tillamook-MMX 266				
Normal Mode(+5V)	2.75				Amp/Max
Suspend Mode(+5V)	1.65				Amp/Max
Normal Mode(+12V)	0.21				Amp/Max
Suspend Mode(+12V)	0.21				Amp/Max
Normal Mode(+3.3V)	N/A				Amp/Max
Suspend Mode(+3.3V)	N/A				Amp/Max

A. Power Margin Test: Play VCD in Win 98 O.S.

Test Point:

1. Play VCD 10 Minutes.

Power Supply :

Voltage	Low/High Voltage 110 V / 220 V	Actual Voltage		Result				Note
		110 V	220 V	110V		220V		
				Pass	Fail	Pass	Fail	
5 V	4.75 V	V	V					
	5.25 V	V	V					
3.3V	3.135V	V	V					
	3.465V	V	V					
12 V	11.4 V	V	V					
	12.6 V	V	V					

B. Power Connector Test: ATX Power Chang To AT Power

Test Point:

1. O.S. :Play VCD in Win 98 O.S.
2. Play VCD 10 Minutes.

Power Supply : DEC DP-ATX 725 B 250W

Voltage	Low/High Voltage 110 V / 220 V	Actual Voltage		Result				Note
		110 V	220 V	110V		220V		
				Pass	Fail	Pass	Fail	
5 V	4.75 V	4.84V	4.84V	✓		✓		
	5.25 V	5.32V	5.32V	✓		✓		
12 V	11.4 V	11.56V	11.56V	✓		✓		
	12.6 V	12.69V	12.69V	✓		✓		

4 . Network HUB / LAN Function Test

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C

Network HUB / LAN Function Test:

Test Point:

1. O.S. : Windows 98 O.S. [B Workstation]
2. Use “ Ping “ Testing.
3. Allow failure rate under 2/1000

Network HUBs	QE WIN2K Server [A Workstions]	Length Size	Function Test				Result		Note
			Speed	Packet In Byte	Send	Received	Pass	Fail	
HP J4095A 24 Ports	A → B	100 M	100M	8192	1000	998	✓		
	B → A	3 M	10 M	8192	1000	999	✓		
D-Link DES-1008	A → B	3 M	10 M	8192	1000	998	✓		
	B → A	100 M	100M	8192	1000	998	✓		
Intel InBusiness 8 Port	A → B	100 M	100M	8192	1000	999	✓		
	B → A	3 M	10 M	8192	1000	998	✓		
LEMEL LM-S5 5 Port	A → B	3 M	10 M	8192	1000	998	✓		
	B → A	100 M	100M	8192	1000	998	✓		
Accton DeskTop-3005	A → B	100 M	100M	8192	1000	999	✓		
	B → A	3 M	10 M	8192	1000	998	✓		
SVEC FD916H [10 Mbps]	A → B	3 M	10 M	8192	1000	999	✓		
	B → A	100 M	10 M	8192	1000	999	✓		

5 . Hardware Compatibility

A. Component Compatibility- CPU

Test Points:

- 1.This test focuses on the compatibility test of all supported processors in the system.
- 2.Setups verify: Verify the processor and L2 are reported correctly during POST at the top of the screen (Reboot 10 times).
- 3.Diagnostics: Run HCT SYSTEM STRESS in Windows NT4.0.

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows NT 4.0 Workstation Ver.4.00.1381 with SP6
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family

Test Result:

OS	CPU Type	Host Bus CLK	Test Item	Result		Note	
				Pass	Fail		
Windows NT 4.0	Tillamook MMX 266 MHz	66MHz	CPU CMOS Message	✓			
			HCT System Stress	✓			
				CPU CMOS Message			
				HCT System Stress			
				CPU CMOS Message			
				HCT System Stress			
				CPU CMOS Message			
				HCT System Stress			
				CPU CMOS Message			
				HCT System Stress			
				CPU CMOS Message			
				HCT System Stress			

B. Component Compatibility- SDRAM DIMM Module

Test Points:

1. Setups verify—Verify the memory size is reported correctly during POST at the top of the screen (Reboot 10 times).
2. Diagnostics—Run the HCT SYSTEM STRESS program for 8 Hrs each item.

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows NT 4.0 Workstation Ver.4.00.1381 with SP6
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family

Memory List:

Item	Brand	DRAM TYPE	Size	Note
1	Infineon	HYB39S64800CT-75 / PC133	128MB	SR-055
2	NANYA	NT56V6620C0T-75 / PC-133	64MB	SR-050
3	Mitsubishi	M2V64S40BTP/PC-100	32MB	SR-047
4	NEC	D45128841G5-A75-95F/PC-133	256MB	SR-054
5	NEC	D45128841G5-A10-9JF/PC-100	256MB	SR-031
6	NEC	D4564841G5-A10-9JF/PC-100	128MB	SR-039
7	NEC	D4564841G5-A80-9JF/PC-100	64MB	SR-040
8	NEC	D4564163G5-A10B-9JF/PC-100	64MB	SR-043
9	NEC	D4516821AG5-A10-9NF/PC100	32MB	SR-027
10	NEC	D4564841G5-A80-9JF / PC-100	128MB	SR-018
11	Hitachi	5264805DTTA60/PC-100	64MB	SR-036
12	Hyndai	HY57V658020 TC-10/PC-100	128MB	SR-007
13	Hyndai	HY57V1291620L TC-10S/PC-100	64MB	SR-034
14	Hyndai	HY57V168010D TC-10S/PC-100	32MB	SR-012
15	SIEMENS	HYB39S16800AT-10/PC-100	32MB	SR-009
16	Apacer	AM2V168A1T8 /PC100	32MB	SR-003
17			MB	
18			MB	
19			MB	

Environment Description: “DIMM 2(1)” means to insert DIMM item 1 in DIMM slot 2

Test Result:

Environment Configuration Run HCT System stress	Result		Note
	Pass	Fail	
DIMM 1(1)	✓		
DIMM 2(1)			
DIMM 3(1)			
DIMM 1(1)+DIMM 2(1)+DIMM 3(1)			
DIMM 1(2)	✓		
DIMM 2(2)			
DIMM 3(2)			
DIMM 1(2)+DIMM 2(2)+DIMM 3(2)			
DIMM 1(3)			
DIMM 2(3)			
DIMM 3(3)			
DIMM 1(3)+DIMM 2(3)+DIMM 3(3)			

DIMM 1(4)			
-----------	--	--	--

DIMM 2(4)			
DIMM 3(4)			
DIMM 1(4)+DIMM 2(4)+DIMM 3(4)			
DIMM 1(5)	✓		
DIMM 2(5)			
DIMM 3(5)			
DIMM 1(5)+DIMM 2(5)+DIMM 3(5)			
DIMM 1(6)	✓		
DIMM 2(6)			
DIMM 3(6)			
DIMM 1(6)+DIMM 2(6)+DIMM 3(6)			
DIMM 1(7)	✓		
DIMM 2(7)			
DIMM 3(7)			
DIMM 1(7)+DIMM 2(7)+DIMM 3(7)			
DIMM 1(8)			
DIMM 2(8)			
DIMM 3(8)			
DIMM 1(8)+DIMM 2(8)+DIMM 3(8)			
DIMM 1(9)			
DIMM 2(9)			
DIMM 3(9)			
DIMM 1(9)+DIMM 2(9)+DIMM 3(9)			
DIMM 1(10)	✓		
DIMM 2(10)			
DIMM 3(10)			
DIMM 1(10)+DIMM 2(10)+DIMM 3(10)			
DIMM 1(11)	✓		
DIMM 2(11)			
DIMM 3(11)			
DIMM 1(11)+DIMM 2(11)+DIMM 3(11)			
DIMM 1(12)	✓		
DIMM 2(12)			
DIMM 3(12)			
DIMM 1(12)+DIMM 2(12)+DIMM 3(12)			
DIMM 1(13)	✓		
DIMM 2(13)			
DIMM 3(13)			
DIMM 1(13)+DIMM 2(13)+DIMM 3(13)			
DIMM 1(14)			
DIMM 2(14)			
DIMM 3(14)			
DIMM 1(14)+DIMM 2(14)+DIMM 3(14)			
DIMM 1(15)			
DIMM 2(15)			
DIMM 3(15)			
DIMM 1(15)+DIMM 2(15)+DIMM 3(15)			
DIMM 1(16)			
DIMM 2(16)			
DIMM 3(16)			
DIMM 1(16)+DIMM 2(16)+DIMM 3(16)			
DIMM 1(17)			
DIMM 2(17)			
DIMM 3(17)			
DIMM 1(17)+DIMM 2(17)+DIMM 3(17)			

C. On Board Audio Function Test

Test Points:

1. Installation Test—Verify the indicated board can be installed correctly.
2. Software Test—Run the test programs that is supplied with the sound drivers and verify all of the tests function correctly.

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2 BIOS 0.1 (09/14/2001)
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	Infineon HYB39S64800CT-75 / PC133 / 128MB
O.S.	Windows 98 SE - 4.10.2222A
Primary IDE Master	Fujitsu MPC3043AT / 4.3GB / ATA33
Primary IDE Slave	NEC BCD F547B / 50X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family 05-15-2001
Audio Card & Driver Version	On Board Realtek RTL8139C PCI Fast Ethernet NIC 03-06-2000
Game Joystick	On Board ESS Solo-1 PCI Audio Drive (WDM) 10-17-1999

The Result:

Function Test	Result		Note
	Pass	Fail	
System Sound	✓		
Play CD_IN	✓		
Play Sound Recorder	✓		
Line Out	✓		
Line In	✓		
Line In Sound Record	✓		
MIC Speaker	Dynamic	✓	Dynamic microphone [DP-001]
	Condenser	✓	Condenser Microphone [DP-200100]
MIC Sound Recorder	Dynamic	✓	Dynamic microphone [DP-001]
	Condenser	✓	Condenser Microphone [DP-200100]
Game Port	N/A		Fly Joystick [Avant Garde Rockfire K5MQF-606i]
Play VCD 10mins	✓		

D.PCI Function(PCI Adapter Card) Test

Test Points:

- 1.This test includes Multimedia Card, SCSI Controller Card, LAN Card and the other PCI Card.
- 2.Install drivers and utilities to verify all functions correct (Including installation, **un-installation**, **reboot**, **suspend and PnP**).
- 3.Run diagnostic test program to verify all kind of PCI Cards one by one then load stress.

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE - 4.10.2222A
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Secondary IDE Master	N/A
Secondary IDE Slave	N/A
Backplane	N/A
Riser Card	PCM-10560-4 Rev:A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

The Result:

Adapter Card VGA Card	Dual Display		Install Driver		Play VCD for least 10 Min		Note
	pass	fail	Pass	Fail	Pass	Fail	
3D Blaster Savage4 [VC-014]	N/A			✓		✓	PCI
LEMEL S3 TRIO64V2-DX/GX [vc-001] / 98SE Support	N/A		✓		✓		PCI
S3 Vision 968 PCI [VC-009] / 98SE Support	N/A		✓		✓		PCI
Adapter Card Sound Card			Install Driver		Play VCD for least 10 Min		Note
			Pass	Fail	Pass	Fail	
Creative AUDIO [SC-003]							PCI
Creative CT4170[SC-006] / 98SE support							ISA
Lemel ESS ES1868F 3D/16 PnP [SC-005] / 98SE Support							ISA
Creative SB16 PNP/CT2980 [SC-002] / 98SE support							ISA
Adapter Card SCSI Card			Install Driver		Play VCD for least 10 Min		Note
			Pass	Fail	Pass	Fail	
AHA-2940U2W [SS-004]							PCI
AHA-2940UW [SS-001] / 98SE support				✓		✓	PCI
AHA-1520B[SS-002] / 98SE support							ISA
Adapter Card Modem Card			Install Driver		Connect to Internet		Note
			Pass	Fail	Pass	Fail	
GVC F2000 56K/V.90 DATA/FAX/MODEM [MD-009]							PCI
Genuine GM56-AMI2019 [MD-007]							PCI
Top Solution Technology 56K / V90 [MD-008]							PCI

Adapter Card LAN Card	Install Driver		Play VCD for least 10 Min		Note
	Pass	Fail	Pass	Fail	
Switch HUB Type	Intel InBusiness 8-Port 10/100 Switch HUB				
D-Link DFE-500TX PCI(10/100Mbps)[NW-007]					PCI
D-Link DFE-540TX PCI(10/100Mbps)[NW-012]					PCI
RTL-8139B (10/100Mbps) [NW-002] / 98SE Support					PCI
Intel SB82559 (10/100Mbps) [NW-013] / 98SE Support	✓		✓		PCI
Intel PILA8560 (10/100Mbps) [NW-006] / 98SE Support					ISA
Adapter Card Other Card	Install Driver		Play VCD for least 10 Min		Note
	Pass	Fail	Pass	Fail	
YUAN DVD MPEG-2 MPEG Card [VC-017]					PCI
LEMEL MPEG DECODER [VC-016] / 98SE Support					ISA
UPMOST 1394 CardBus + FireWire 3.5 HardDisk Enclosure					In O.S. WIN98 SE / 98ME /2000 Support
Adapter Card RAID Card	Install Driver		RAID 0 / 1 Function Test		Note
	Pass	Fail	Pass	Fail	
ABIT HotRod 100 Pro					PCI
PROMISE Ultra 100					PCI

E. Peripheral Compatibility-HDD / CDROM Device

Test Points:

- 1.This test emphasizes on PCI IDE Devices compatibility test.
- 2.Autosense Test—Verify the HDDs reported correctly during POST after setup(EXP: Capacity up than 40GB).
- 3.Setup BIOS--AUTO, USER and Disable on IDE detect item then reboot 10 times.

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Secondary IDE Master	N/A
Secondary IDE Slave	N/A
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C

Peripheral Compatibility-HDD / CDROM Device:

HDD Device	Dectect Message		Booting Up		Read/Write		Play VCD		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
IBM DTLA-307075 / 76.8GB / ATA-100	✓		✓		✓		✓		ID-200105
IBM DTLA-307045 / 46.1GB / ATA-100	✓		✓		✓		✓		ID-041
IBM DHEA-34330 / 4.3GB / ATA-33									ID-015
Maxtor 54610H6 / 46.1GB /ATA-100									ID-038
Maxtor 54098U8 / 40.9GB / ATA-66									ID-037
Maxtor 51536U3 / 15.3GB / ATA-66	✓		✓		✓		✓		ID-034
Seagate ST315320A / 15.3GB / ATA-66									ID-046
Seagate ST34520 / 4.5GB / ATA-33									ID-018
Quantum QMP30000AS-A / 30GB /ATA-100									ID-200110
Quantum K13600AT / 13GB / ATA-66									ID-030
Fujitsu MPE 33072 / 30.7GB / ATA-100	✓		✓		✓		✓		ID-042
Fujitsu MPE 3136AH / 13.6GB / ATA-66	✓		✓		✓		✓		ID-033
Fujitsu MPC3043AT-E / 4.3GB / ATA-33	✓		✓		✓		✓		ID-200104
W/D AC28400 / 8.4GB									ID-023
W/D AC26400 / 6.4GB									ID-026
Hitach DK226A-21U / 2.6GB									ID-017
Fujitsu MAH3091MP / 9.1GB / Ultra160 / LVD									SD005
Seagate ST39205LW/P / 9GB / Ultra160 /LVD									SD200101
DVD/CD-ROM Device	Dectect Message		Booting Up		Read/Write		Play VCD		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
NEC C&C-BCD F561B / 52X									CD035
ASUS CD-S500A / 50X									CD034
TEAC CD-532E / 32X	✓		✓		✓		✓		CD043
SONY CDU4811-81 / 48X									CD030
CREATIVE CD5220E / 52X									CD028
CREATIVE DVD1240E / 12X / DVD-ROM									CD046
PIONEER ATAPI DVD-A03S / 6X / DVD-ROM									CD010
Acer DVP1640A / 16X / DVD-ROM									CD044
MITSUMI CRMC-FX4824T /48X	✓		✓		✓		✓		CD023
AFREEY CD-2050E / 50X									CD036
RICOH MP7060S / 24X / SCSI-CDROM									CD045

[N/A]

Full 4 IDE HDD Device		Dectect Message		Booting Up		Read/Write		Play VCD		Note
		Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
P1	IBM DTLA-307075 / 76.8GB / ATA-100									
P2	Quantum LM20500AT / 20.5GB /ATA-66									
S1	Fujitsu MPE 33072 / 30.7GB / ATA-100									
S2	Maxtor 54610H6 / 46.1GB /ATA-100									

E-1.Ultra ATA/66/100 Test

Test Points:

1.Check the RAID 0/1 between ATA/66 and ATA/100 HDD.

2.Verify ATA RAID Function test.

Platform Information: [N/A]

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA-100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Driver & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)
IDE Driver & Driver Version	

The Result:

Adapter Card RAID Card	Install Driver		RAID 0 / 1 Function Test		Note
	Pass	Fail	Pass	Fail	
PROMISE Ultra 100					
Quantum QMP30000AS / ATA100 / 30GB					
Maxtor 4098U8 / ATA66 / 40GB					
ABIT HotRod 100 Pro					
Quantum QMP30000AS / ATA100 / 30GB					
Maxtor 4098U8 / ATA66 / 40GB					

F .USB Function Test Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Driver & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Device Item:

Item	Device Type	Brand	Model
1	Keyboard [KE-019]	LEMEL	7932
2	Mouse [MS-028]	DEXIN	A2U800A
3	Scanner	HP	SJ4200C
4	Printer	HP	Photo Smart P1000
5	Camera	Tekcam	P35U
6	ZIP [CD-017]	IOMEGA	ZIP 100MB
7	Ethernet Adapter [NW-017]	D-Link	DU-E10
8	HUB [HB-009]	D-Link	DSB-H4/DU-H4

Environment Description: "USB2(1)" means to insert USB item 1 device type in USB Port 2.

Test Result:

Test Item		Result		Note
		Pass	Fail	
BIOS setup test				
MS-DOS 6.22 / WIN 98 / WIN2K	USB Legacy Function Test [ACK-298]	✓		Keyboard
	USB Keyboard	✓		Keyboard
Windows 98 SE 4.10.2222A	USB1(1)	✓		
	USB2(2)	✓		
	USB1(3)	✓		
	USB2(4)	✓		
	USB1(1)+ USB2(2)	✓		
	USB1(3)+ USB2(4)	✓		
	USB1(6)+ USB2(8)	✓		
	USB1(8)+ {USB2(6)+ USB(1)+ USB(2)+ USB(3)+ USB(4)}	✓		Add USB HUB Switch
	Enable/Disable USB Drive	✓		
	OS Rebooting Test	✓		
Windows 2000 Professional 5.00.2195	USB1(1)			
	USB2(2)			
	USB3(3)			
	USB4(4)			
	USB1(2)+ USB2(7)			
	USB3(5)+ USB4(6)			
	USB1(1)+ USB2(3)+ USB3(6)			
	USB2(2)+ USB3(4)+ USB4(5)			
	USB1(3)+ USB2(4)+ USB3(5)+ {USB4(8)+ USB(1)+ USB(2)+ USB(6)+ USB(7)}			Add USB HUB Switch
	Enable/Disable USB Drive			
	OS Rebooting Test			

G.Floppy Disk Controller**Test Result:**

Test Item		Result (1.44M)		Note
		Pass	Fail	
Copy and Compare file between C: and A/B	MS-DOS 6.22	✓		
	Windows 98 SE 4.10.2222A	✓		
Format A/B with system transfer and boot PC from floppy	MS-DOS 6.22	✓		
	Windows 98 SE 4.10.2222A	✓		
Change BIOS Floppy is NONE value	Windows 95 4.00.950B	N/A		
	Windows 98 SE 4.10.2222A	✓		
SWAP FDD	MS-DOS 6.22	✓		
	Windows 98 SE 4.10.2222A	✓		

H. I/O Peripheral Test**Platform Information:**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Driver & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Environment Setting:

Operating System	Windows 98 SE 4.10.2222A MS-DOS 6.22
------------------	---

The Result:

I/O	Pass	Fail	Not support	Note	Reference Page
FDD Driver A:	✓				Page 18
FDD Driver B:	✓				Page 18
Primary IDE Master	✓				Page 18
Primary IDE Slave	✓				Page 18
Secondary IDE Master			✓		Page 18
Secondary IDE Slave			✓		Page 18
COM 1	✓				Page 35
COM 2-232	✓				Page 35
COM 3	✓				Page 35
COM 4	✓				Page 35
COM 2-422	✓				Page 35
COM 2-485	✓				Page 35
PS/2 MOUSE	✓				Page 35
LPT 1	✓				Page 35
LPT 2			✓		Page 35
SIR / 115Kbps	✓				Page 35
FIR / 4M bps			✓		Page 35
DIO			✓		Page 20
DOC	✓				Page 20
Compact Flash			✓		Page 20
TV-out / AV & S Output	✓				Page 35
Function	Pass	Fail	Not support	Notes	Reference Page
H/W Reset	✓				Page 35
Speaker	✓				Page 35
Buzzer	✓				Page 35
Keyboard Lock			✓		Page 35
HDD LED	✓				Page 35
Power LED			✓		Page 35
Ext. K/B Connector	✓				Page 35
ATX Power button			✓		Page 35
CPU FAN Connector	✓				Page 35
LAN LED	✓				Page 35
Watchdog –Reset			✓		Page 6
Watchdog –IRQ n			✓		Page 6

I. Peripheral Compatibility- Storage Device**Platform Information:**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	Quantum K13600AT / 13GB / ATA-66
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Driver & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Device List:

Device item	Booting		Format		Read/Write		Programming		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
ZIP 100 [IDE]	✓		✓		✓		✓		lomega
LS 120 [IDE]	✓		✓		✓		✓		LKM-F930-1
DOC 2000 Model	2MB								M-System / MD2200-D02
	8MB								M-System / MD2200-D08
	16MB	✓		✓		✓	✓		M-System / MD2200-D16
	MB								
	MB								
DOC 2000 MB Memory Segment	CC00								
	D000								
	D400	✓		✓		✓	✓		
	D800	✓		✓		✓	✓		
	DC00	✓		✓		✓	✓		
Compact Flash	Disable	✓		✓		✓	✓		
	340MB								TYPE II / [CF-001]
	16MB								TYPE I / [CF-200100]

Note: Compact Flash :

1. IBM MDM-10340CF / 340MB / Type II
2. PQI FC016 / 16MB / Type I

J. Digital I/O Connector Test:

Input Address: _____

Output address: _____

Device item	Input Address		Output Address		VCC		GND		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
DIO Function Test									

K. Adapter Compatibility- Industry Control Card / PC104 / PC104 Plus Modules**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	Quantum K13600AT / 13GB / ATA-66
Primary IDE Slave	TEAC CD-540E / 40X
Secondary IDE Master	N/A
Secondary IDE Slave	N/A
Backplane	
Riser Card	
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	

Device List: PC/104 Module

Device item	Booting / Format		Read / Write		Programming		+/- 12V; +/- 5V		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
AAEON PCM-3600									Fax/Modem Module
AAEON PCM-3420									Fast SCSI-2 Module
AAEON PCM-3110									PCMCIA Module
AAEON PCM-3115B									PCMCIA Module
AAEON PCM-3640									RS-232 Module

Device List: PC/104 Plus Module

Device item	Booting / Format		Read / Write		Programming		+/- 12V; +/- 5V		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
AAEON PCM-3730									Intel 82559 LAN Module
AAEON PCM-3430									SCSI Module

L. On-Board SCSI Function Test

Test Points:

- 1.This test emphasizes on SCSI compatibility test.
- 2.Autosense Test—Verify the HDDs reported correctly during POST after setup(EXP: Capacity up than 40GB).
- 3.Setup BIOS--AUTO, USER and Disable on SCSI ID Address detect item then reboot 10 times.

Platform Information: [N/A]

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Device List:

Device item	Booting		Format		Read / Write		Programming		Note
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	
RICOH MP7060S / 24X / SCSI-CDROM									CD-045
Seagate 32155W / 2.15GB									SD-001
Seagate ST39205LW/P 9GB / Ultra160 / LVD									SD-200101
Fujitsu MAH3091MP / 9.1GB / Ultra160 / LVD									SD-005
Fujitsu MCB3064SS / MO Device									MO-001

7 . BIOS Function Test

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	Windows 98 SE 4.10.2222A
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

A. Y2K Test:

Y2K Software Test	Result		Note
	Pass	Fail	
TEST2000.EXE	✓		Execute TEST2000 Program
Y2KEYE.EXE (Option)			Execute Y2KEYE Program

B. Standard CMOS Setup Test:

Test Item	Setting		Function		Note
	Pass	Fail	Pass	Fail	
Data (mm:dd:yy)	✓		✓		
Time (hh:mm:ss)	✓		✓		
IDE Primary Master	✓		✓		
IDE Primary Slave	✓		✓		
IDE Secondary Master	N/A		N/A		
IDE Secondary Slave	N/A		N/A		
Floppy Disk A	✓		✓		1.44M,3.5 in. / None
Floppy Disk B	✓		✓		1.44M,3.5 in. / None

C. Boot Sequence Test:

Test Item	Result		Note
	Pass	Fail	
A: [Floppy]	✓		
LS-120	✓		
HDD-0:	✓		
SCSI	Note1		AHA-2940UW SCSI Card
CDROM	✓		
HDD-1:	✓		
HDD-2:	N/A		
HDD-3:	N/A		
ZIP100	✓		
LAN [Boot From LAN First]	N/A		
First Boot Device	✓		
Second Boot Device	✓		
Third Boot Device	✓		
Fourth Boot Device	N/A		

D:Power Manager Test:**D-1.APM Power Manager Test:**

Test Item	Time	Result		Note
		Pass	Fail	
Normal Mode	Min	✓		
Doze Mode	1 Min	✓		57 Sec
Sleep (or Standby) Mode	2 Min	✓		2 Min 56 Sec
Suspend Mode	3 Min	✓		6 Min 01 Sec
Power Button	Delay 4 Sec	N/A		
Power Button	Instant-Off	N/A		

D-2.ACPI Power Manager Test: [N/A]

Test Item	Result		Note
	Pass	Fail	
S1 (POS)			Power On Suspend
S3 (STR)			Suspend To RAM

Note:Supported only ATX Power.

D-3.Power On Function Test: [N/A]

Test Item	Result		Note
	Pass	Fail	
Password			
Hot KEY			
MOUSE Left			
MOUSE Right			
Any KEY			
BUTTON ONLY			
Keyboard 98			

D-4.Wake Up Event Test:

Test Item	Result		Note
	Pass	Fail	
Wake On MODEM	N/A		
Wake On LAN	N/A		
Wake On RTC	✓		

E. CMOS Backup Test:

CMOS Backup Test	Result		Note
	Pass	Fail	
	✓		

F. Boot ROM Test: [N/A]

Boot ROM Test	Result		Note
	Pass	Fail	
Boot ROM to Novell 4.11			HP ProCurve Switch 2224 [HP J4095A] HUB
Boot ROM to NT Server 4.0			D-Link DES-1008 Switch HUB

G. COM Address / IRQ Test:**Mouse: Logitech M-M35**

Test Item	BIOS Adjust		Function		Note
	Pass	Fail	Pass	Fail	
COM 1					
3F8 / IRQ4	✓		✓		
2F8 / IRQ3	✓		✓		
3E8 / IRQ4	✓		✓		
2E8 / IRQ3	✓		✓		
AUTO	✓		✓		
Disable	✓		✓		
COM 2					
3F8 / IRQ4	✓		✓		
2F8 / IRQ3	✓		✓		
3E8 / IRQ4	✓		✓		
2E8 / IRQ3	✓		✓		
AUTO	✓		✓		
Disable	✓		✓		
COM 3					
3E8 / IRQ10	✓		✓		
2E8 / IRQ5	✓		✓		
3F8 / IRQ10	✓		✓		
2F8 / IRQ5	✓		✓		
AUTO	N/A				
Disable	✓		✓		
COM 4					
3E8 / IRQ10	✓		✓		
2E8 / IRQ5	✓		✓		
3F8 / IRQ10	✓		✓		
2F8 / IRQ5	✓		✓		
AUTO	N/A				
Disable	✓		✓		

H. LPT Address / IRQ Test:**Printer Type : Photo Smart P1000**

Test Item	BIOS Adjust		Function		Note
	Pass	Fail	Pass	Fail	
LPT 1					
378/IRQ7 (ECP+EPP1.9/DMA3)	✓		✓		
378/IRQ7 (ECP+EPP1.7/DMA3)	✓		✓		
278/IRQ5 (ECP+EPP/DMA3)	N/A				
3BC/IRQ7 (ECP+EPP1.9/DMA3)	✓		✓		
3BC/IRQ7 (ECP+EPP1.7/DMA3)	✓		✓		
Disabled	✓		✓		
LPT1 Mode					
ECP+EPP1.9 (378 / IRQ7)	✓		✓		
ECP+EPP1.7 (378 / IRQ7)	✓		✓		
SPP (378 / IRQ7)	✓		✓		
EPP1.9 (378 / IRQ7)	✓		✓		
EPP1.7 (378 / IRQ7)	✓		✓		
ECP (378 / IRQ7)	✓		✓		
LPT1 Port DMA Channel					
DMA3 (ECP+EPP1.9 378 / IRQ7)	✓		✓		
DMA3 (ECP+EPP1.7 378 / IRQ7)	✓		✓		
DMA1 (ECP+EPP1.9 378 / IRQ7)	✓		✓		
DMA1 (ECP+EPP1.7 378 / IRQ7)	✓		✓		

LPT2					
278 /IRQ5(ECP+EPP/DMA3)					
3BC/IRQ7(ECP+EPP/DMA3)					
378 /IRQ7(ECP+EPP/DMA3)					
Disable					

LPT2 Mode					
ECP+EPP (278 / IRQ5)					
SPP (278 / IRQ5)					
EPP (278 / IRQ5)					
ECP (278 / IRQ5)					
LPT2 DMA Channel					
DMA3 (ECP+EPP 278 / IRQ5)					
DMA1 (ECP+EPP 278 / IRQ5)					

I. Hardware Monitor Test:

Hardware Monitor Test	Result		Note
	Pass	Fail	
+5V	✓		4.94V
- 5V		✓	-0.16V
+12V	✓		11.85V
- 12V		✓	-0.39V
V I/O	✓		2.49V
V Core	✓		2.0V
RPM of FAN1	✓		5400
RPM of FAN2			
TEMPERATURE 1	✓		
TEMPERATURE 2			
Alarm			

J. Supervisor / User Password Test:

Hardware Monitor Test	Result		Note
	Pass	Fail	
Supervisor Password	✓		
User Password	✓		

K. BIOS AWDFLASH Program Test:

BIOS Test	Result		Note
	Pass	Fail	
Flash Version 7.89			
Brand	STI M29F002BT		
BIN file → ***** .BIN	5896V-6 .BIN		
Execute Flash Program	✓		

8 . Performance Test

Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
O.S.	As below
Monitor Type	ViewSonic E70
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

A. Operating System Environment :

MS-DOS 6.22	Config.sys	Device=c:\dos\himem.sys dos=high,umb files=35 Buffers=40
	Autoexec.bat	Prompt \$p\$g c:\dos\smartdrv.exe /x

Test Result:

CPU Type	Tillamook MMX-266				Unit
Testing Utility					
LandMark Speed 2.0					
CPU	900.99				MHz
FPU	3441.09				MHz
VIDEO	12288.00				Chr/ms
QAPLUS 5.4 - PM					
Data Transfer Rate	15140.1				KB/Sec
Coretest V3.02					
Average Seek Time	4.4				ms
Track-Track Seek	1.0				ms
DTR (Buffered Read)	9664				KB/Sec
Performance ID	70.02				

B.Operating System Environment :

Windows 98	SE 4.10.2222A
Resolution, Depth	1024x768x16bits

Test Result:

CPU Type	Tillamook MMX-266					Unit
Testing Utility						
WinBench 99 V1.1- (DirectX 7.0 / 1024X768X16bits)						
H.E. Graphic WinMark 99	147					MP/s
Business Graphic WinMark 99	47.3					TB/s
FPUmark	671					
CPUMark 99	9.92					
Final Reality V1.01—BenchMark Test - (DirectX 7.0 / 1024X768X16bits)						
2D image	1.92					
3D	1.83					
Bus transfer	2.07					
Overall	1.89					
3D Winbench 2000 V1.0 - (DirectX 7.0 / 1024X768X16bits)						
[Least 120MB Memory In O.S. WIN98 & 2K Support]						
3D Winbench 2000 Processor Test	0.15					
Content Creation Winstone 2000 V1.0 - (DirectX 7.0 / 1024X768X16bits)						
C.C. Winstone 2000	7.7					

C.Operating System Environment :

O.S.	Windows NT 4.0 Workstation Ver.4.00.1381 with SP6
Resolution, Depth	1024x768x16bits[65536C]

Test Result:

CPU Type	Tillamook MMX-266					Unit
Testing Utility						
WinStone 99 V1.1						
HighEnd WinStone 99	11.4					
Business Winstone 99	12.4					

9 . O.S. Compatibility Test

A. O.S. Compatibility -Linux RedHat7.0

Platform Information: [N/A]

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Kernel Version	2.2.16-22
CRT Monitor Type	ViewSonic E773
LCD Monitor Type	NEC / NL6448BC33-46 / TFT / 10.4" / 3.3 or 5 V / 640*480
Primary IDE Master	N/A
Primary IDE Slave	N/A
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation	Result		Note
	Pass	Fail	
Linux 7.0 English			2.2.16-22
Linux 7.0 Chinese(Optional)			

Test Result:

Test Item	Pass		Fail		Note
Installation to HDD					
Install from CD-ROM					
Network Funtion Test					
LAN Function Test					Connection Network
Ping IP Address					Ping
Telnet IP Address					Telnet
Base Funtion					
Reboot					init 6
Shutdown					init 0
Virtual Consoles					Ctrl+Alt+F[1-7]
Xf86config Setup					
Mouse setup					mouseconfig
VGA setup					Xconfigurator
LAN Setup					netconf / ifconfig
Keyboard Setup					kbdconfig
X Windows Application	CRT	LCD	CRT	LCD	Note
Xclock					
X-Window					startx
Play Audio Function Test					
Play Audio Function Test					Play Audio Test
MIC Function Test					Microphone Test
Command Test On Text Mode					
Login / Password					
Shutdown now					
Reboot					Restart
Halt					Power Off Mode
ls / clear					Command instruction

B. O.S. Compatibility-Novell Network O.S./V 4.11**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Switch HUB Type	Intel InBusiness 4Port 10/100 Switch
Primary IDE Master	N/A
Primary IDE Slave	N/A
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board RealTek8139C

The Result:

Test Item	Result		Note
	Pass	Fail	
Server Function Testing			
Install to IDE HDD			
Boot File Server From HDD			
Down & Exit			
Data Transfer			Data Read / Write / Copy

Client Function Testing			
Login			
Logout			
Data Transfer			Data Read / Write / Copy
Client to Server [HP ProCurve Switch 2224 / HP J4095A] HUB			Server: QE Novell 4.11 server Client: MS-DOS 6.22 O.S.

C. O.S. Compatibility & On_Board Network Test -Novell Network O.S./V 5.0**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Primary IDE Master	N/A
Primary IDE Slave	N/A
Backplane	N/A
HP Switch HUB	Intel InBusiness 4Port 10/100 Switch
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board RealTek RTL8139C

The Result:

Test Item	Pass	Fail	Note
Server Function Testing			
Install to IDE HDD			
Boot File Server From HDD			
Down & Exit			
Data Transfer			Data Read / Write / Copy
Client Function Testing			
Login			
Logout			
Data Transfer			Data Read / Write / Copy
Novell Network Command Function Testing			
Test Item	Pass	Fail	Note
Load Install			Server site
Load Monitor			Server site
Network Operation System Function Testing			
Test Item	Pass	Fail	Note
NetWare 5.0			From WIN98 OS Connection
Network Performance Testing [HP ProCurve Switch 2224 / HP J4095A HUB]			
Test Item	Pass	Fail	Note
NWTEST			12 Hrs

Client Application Function Testing			
Test Item	Result		Note
	Pass	Fail	
Dos 6.22 for IPXODI			
Dos 6.22 for package driver			
Transfer Data Between SRV And WK			Read / Write / Copy

D. O.S. Compatibility-Windows 95**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Monitor Type	ViewSonic E70
Primary IDE Master	N/A
Primary IDE Slave	N/A
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation	Result		Note
	Pass	Fail	
WIN95 English			4.00.950B
WIN95 Chinese(Optional)			

VGA Driver Testing:

Resolution	Color	Font Size		Result		Note
		SF	LF	Pass	Fail	
640X480	16					
	256					
	16bits					
	24bits					
	32bits					
800X600	16					
	256					
	16bits					
	24bits					
	32bits					
1024X768	16					
	256					
	16bits					
	24bits					
	32bits					
1280X1024	16					
	256					
	16bits					
	24bits					
	32bits					
1600X1200	16					
	256					
	16bits					
	24bits					
	32bits					

Test Results:

Test Item	Pass	Fail	Note
Installation From Storage Device			
Install to IDE HDD			
DOC Device – Read / Write			
DOC MB / Address			
Boot [F8 Start up Boot Up Menu] Item Test			
Normal			
Logged (\BOOTLOG.TXT)			
Safe Mode			
Step By Step Confirmation			
Command Prompt Only			
Safe Mode Command Prompt only			
Previous version of MS-DOS			Before execute Fix95B Program
Function Test			
LAN			
Serial Mouse			
FDD Format/Copy/Read/Write			
PS/2 Mouse			
System Clock			
Keyboard Function Test			
Alt+F4 [Quit a Program]			
Ctrl+Esc [Display the Start Menu]			
Alt+Tab [Switch To Last Windows]			
Ctrl+Alt+Del [Close Program]			
F8 Start up Boot Up Menu			
F4 Boot Up from Previous			Before execute Fix95B Program
Shutdown – Start Menu			
Suspend			
Shutdown the Computer			
Shutdown Restart			
Shutdown to MS-DOS Mode			
Close all Prog. & Login Other User			

E. O.S. Compatibility-Windows 98 SE**Platform Information:**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
CRT Monitor Type	ViewSonic E70
LCD Monitor Type	Samsung / LTM150XS-T02 / TFT / 15" / 5V / 1024*768
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA-100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation	Result		Note
	Pass	Fail	
WIN98 SE English	✓		4.10.2222A
WIN98 SE Chinese(Optional)			

VGA Driver Testing:

Resolution	Color	Font Size				Result				Note
		CRT		LCD		CRT		LCD		
		SF	LF	SF	LF	Pass	Fail	Pass	Fail	
640X480	16									
	256	✓	✓			✓			✓	
	16bits	✓	✓			✓			✓	
	24bits	✓	✓			✓			✓	
	32bits									
800X600	16									
	256	✓	✓			✓			✓	
	16bits	✓	✓			✓			✓	
	24bits	✓	✓			✓			✓	
	32bits									
1024X768	16									
	256	✓	✓			✓			✓	
	16bits	✓	✓			✓			✓	
	24bits	✓	✓			✓			✓	
	32bits									
1280X1024	16									
	256	✓	✓			✓			✓	
	16bits	✓	✓			✓			✓	
	24bits	✓	✓			✓			✓	
	32bits									
1600X1200	16									
	256									
	16bits									
	24bits									
	32bits									

Test Results:

Test Item	Pass	Fail	Note
Installation From Storage Device			
Install to IDE HDD	✓		
DOC Device – Read / Write			
DOC 16 MB / D400 Address	✓		
Boot [F8 – Windows 98 Start up Menu] Item Test			
Normal	✓		
Logged (\BOOTLOG.TXT)	✓		
Safe Mode	✓		
Step By Step Confirmation	✓		
Command Prompt Only	✓		
Safe Mode Command Prompt Only	✓		
Previous version of MS-DOS	N/A		
Function Test			
LAN	✓		
Serial Mouse	✓		
FDD Format/Copy/Read/Write	✓		
PS/2 Mouse	✓		
USB Mouse/ Keyboard	✓		
IR Mode	✓		
System Clock	✓		
Keyboard Function Test			
Alt+F4 [Quit a Program]	✓		
Ctrl+Esc [Display the Start Menu]	✓		
Alt+Tab [Switch To Last Windows]	✓		
Ctrl+Alt+Del [Close Program]	✓		
F8 Start up Boot Up Menu	✓		
F4 Boot Up from Previous – Text Mode	✓		
Shutdown – Start Menu			
Standby	✓		
Shutdown the Computer	✓		
Shutdown Restart	✓		
Shutdown to MS-DOS Mode			
Close all Prog. & Login Other User	N/A		

F. O.S. Compatibility-Windows ME**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Monitor Type	ViewSonic E773
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation	Result		Note
	Pass	Fail	
WIN98 ME English			4.90.3000
WIN98 ME Chinese(Optional)			

VGA Driver Testing:

Resolution	Color	Font Size		Result		Note
		SF	LF	Pass	Fail	
640X480	16					
	256					
	16bits					
	24bits					
	32bits					
800X600	16					
	256					
	16bits					
	24bits					
	32bits					
1024X768	16					
	256					
	16bits					
	24bits					
	32bits					
1280X1024	16					
	256					
	16bits					
	24bits					
	32bits					
1600X1200	16					
	256					
	16bits					
	24bits					
	32bits					

Test Results:

Test Item	Pass	Fail	Note
Installation From Storage Device			
Install to IDE HDD			
DOC Device – Read / Write			
DOC MB / Address			
Boot [F8 Start up Boot Up Menu] Item Test			
Normal			
Logged (\BOOTLOG.TXT)			
Safe Mode			
Step By Step			
Function Test			
LAN			
Serial Mouse			
FDD Format/Copy/Read/Write			
PS/2 Mouse			
USB Mouse/ Keyboard			
IR Mode			
System Clock			
Keyboard Function Test			
Alt+F4 [Quit a Program]			
Ctrl+Esc [Display the Start Menu]			
Alt+Tab [Switch To Last Windows]			
Ctrl+Alt+Del [Close Program]			
F8 Start up Boot Up Menu			
F4 Boot Up from Previous			
Shutdown – Start Menu			
Standby			
Shutdown the Computer			
Shutdown Restart			
Shutdown to MS-DOS Mode			
Close all Prog. & Login Other User			

G. O.S. Compatibility & On Board Network Test-Windows NT 4.0 Platform Information(Client Site):

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Monitor Type	CTX SL710S
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation(With SP6)	Result		Note
	Pass	Fail	
WINDOWS NT4.0 Workstation English	✓		
WINDOWS NT4.0 Server English	✓		
WINDOWS NT4.0 Workstation Chinese(Optional)			
WINDOWS NT4.0 Server Chinese(Optional)			

VGA Driver Test:

Resolution	Color	Font Size		Result		Note
		SF	LF	Pass	Fail	
640X480	16					
	256	✓	N/A	✓		256C
	16bits	✓	N/A	✓		65536C
	24bits	✓	N/A	✓		16777216C
	32bits					
800X600	16					
	256	✓	✓	✓		256C
	16bits	✓	✓	✓		65536C
	24bits	✓	✓	✓		16777216C
	32bits					
1024X768	16					
	256	✓	✓	✓		256C
	16bits	✓	✓	✓		65536C
	24bits	✓	✓	✓		16777216C
	32bits					
1280X1024	16					
	256	✓	✓	✓		256C
	16bits	✓	✓	✓		65536C
	24bits	✓	✓	✓		16777216C
	32bits					
1600X600	16					
	256	✓	✓	✓		256C
	16bits	✓	✓	✓		65536C
	24bits					16777216C
	32bits					

Test Results:

Test Item	Pass	Fail	Note
Installation From CD-ROM			
Install to IDE HDD	✓		
DOC Device – Read / Write			
DOC 16 MB / Address		✓	
Boot			
Boot to Windows NT	✓		
Boot to MS-DOS	✓		
Last known good configuration	✓		
Original Configuration	✓		
Shutdown	✓		
Shutdown & Restart	✓		
CPU/Memory/File System			
Memory size less than 64MB	✓		
Memory size Larger than 64MB	✓		
Virtual memory	✓		
System tasking settings	✓		
FAT	✓		
NTFS	✓		
Network	✓		
System clock	✓		
Task switching	✓		
Function Test			
LAN	✓		
FDD Format/Copy/Read/Write	✓		
PS/2 Mouse	✓		
Keyboard Function Test			
CapLock,NumLock,ScrLock	✓		
Ctrl+Alt+Del	✓		
Ctrl+Esc,Alt+Tab/Esc/Space	✓		
Alt+Tab,Alt+Esc,Alt+Space	✓		
Ctrl+Alt+Pause/Print Screen	✓		
COM Port			
Serial Mouse	✓		
Security/Audit/Control			
User manager	✓		
Disk administrator	✓		
Performance monitor	✓		
User profile editor	N/A		
Event Viewer	✓		
Windows NT Diagnostics	✓		

Network Function Testing			
Test Item	Pass	Fail	Note
Transceiver	✓		
Receiver	✓		
CRC error	✓		
Collision back-off generation	✓		
Auto-negotiation	✓		
Network Operation System Function Testing			
Test Item	Pass	Fail	Note
Windows NT 4.0	✓		
Network Testing			
Test Item	Pass	Fail	Note
Connect to Neighborhood	✓		
Workstation Application Function Testing			
Test Item	Pass	Fail	Note
Windows 98 for NetBEUI	✓		
Windows 98 for TCP/IP	✓		
Windows NT 4.0 for NetBEUI	✓		
Windows NT 4.0 for TCP/IP	✓		
Transfer Data Between SRV And WK	N/A		Mulity Task 12 Hrs(NOTE 1.)

Note : 1.Mulity Task is that transfers files(copy/verify/delet) and VCD in the same time

H.Microsoft Windows 98 Hardware Compatibility Test(HCT)**Platform Information: [N/A]**

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Monitor Type	ViewSonic E773
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Test Result:

HCT <input type="checkbox"/> 7.2 <input checked="" type="checkbox"/> 9.1 Features Test	Pass	Fail	Note
Virtual Dos Mach			
DMPS Test			
Extended BIOS Parameter Block			
MCI CD Interface			
BCT API Test			
Disk(Stress) Individual Drive			
Disk (Stress)			
Coprocessor(Stress)			
PCI I/O Space			
PCI 2.1 (BIOS)			
Unreported I/O			
Unreported Memory			
APM 1.2			

I. O.S. Compatibility-Windows 2000

Platform Information: [N/A]

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
CRT Monitor Type	ViewSonic E773
LCD Monitor Type	Toshiba / TFT / 10.4" / 5 V / 800*600
Primary IDE Master	IBM DTLA-307075 / 76.8GB / ATA-100
Primary IDE Slave	TEAC CD-540E / 40X
Backplane	N/A
Riser Card	PCM-10560-4 Rev.A1.0
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Installation Software:

Installation(With SP6)	Result		Note
	Pass	Fail	
WINDOWS 2000 Professional English			5.00.2195
WINDOWS 2000 Server English			
WINDOWS 2000 Professional Chinese(Optional)			
WINDOWS 2000 Server Chinese(Optional)			

VGA Driver Testing:

Resolution	Color	Font Size				Result				Note
		CRT		LCD		CRT		LCD		
		SF	LF	SF	LF	Pass	Fail	Pass	Fail	
640X480	16									
	256									
	16bits									
	24bits									
	32bits									
800X600	16									
	256									
	16bits									
	24bits									
	32bits									
1024X768	16									
	256									
	16bits									
	24bits									
	32bits									
1280X1024	16									
	256									
	16bits									
	24bits									
	32bits									
1600X1200	16									
	256									
	16bits									
	24bits									
	32bits									

Test Results:

Test Item	Pass	Fail	Note
Installation From Storage Device			
Install to IDE HDD			
DOC Device – Read / Write			
DOC MB / Addree			
Boot - Windows 2000 Advanced Options Menu			
Safe Mode			
Safe Mode with Networking			
Safe Mode with Command Prompt			
Enable Boot Logging			
Enable VGA Mode			
Last known Good Configuration			
Directory Services Restore Mode (windows 2000 domain controllers only)			
Debugging Mode			
Boot Normally			
Return to OS Choices Menu			
Function Test			
LAN			
Serial Mouse			
FDD Format/Copy/Read/Write			
PS/2 Mouse			
USB Mouse/ Keyboard			
IR Mode			
System Clock			
Keyboard Function Test			
Alt+F4 [Quit a Program]			
Ctrl+Esc [Display the Start Menu]			
Alt+Tab [Switch To Last Windows]			
Alt+Esc Switch Windows			
Ctrl+Alt+Del Windows Security Window			
F8 Start up Windows 2000 Advanced Options Menu Menu			
Shutdown – Start Menu			
Log off User			
Shut down			
Restart			

J. O.S. Compatibility-DOS and DOS Utility Compatibility Testing Platform Information:

PCB Model & Version	PCM-5896V Rev.A0.2
CPU Type & FSB	Tillamook-MMX 266MHz
Memory Type	NEC D4564841G5-A10-9JF / PC100 / 128MB
Primary IDE Master	IBM DTLA-307045 / 46.1GB / ATA-100
Primary IDE Slave	TEAC CD-532E / 32X
Backplane	N/A
Riser Card	N/A
VGA Card & Driver Version	On Board Silicon Motion Lynx 3DM Family
LAN Card & Driver Version	On Board Realtek RTL8139C
Audio Card & Driver Version	On Board ESS Solo-1 PCI Audio Drive (WDM)

Test Results:

Test Item	Result		Note
	Pass	Fail	
Installation MS-DOS6.22 From FDD			
Install to IDE HDD	✓		
DOC Device – Read / Write			
DOC 16 MB / D400 Address	✓		
DOS Commander			
MSD.COM	✓		
EDIT.COM	✓		
EMM386.EXE	✓		
HIMEN.SYS	✓		