

P5 Verification Test Plan

Release No : 07P010001

Product Model	AEC-6710
Description	
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : PFM-550S Rve:A1.0 <input checked="" type="checkbox"/> BIOS : AEC-6710 BIOS Rev.1.0 (10/11/2006) <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU Type : VIA C3 Mark 533MHz (133x4.0) <input checked="" type="checkbox"/> North Bridge : VIA Mark <input checked="" type="checkbox"/> South Bridge : VIA VT82C686B <input checked="" type="checkbox"/> VGA Chipset : VIA VT8606 <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 <input checked="" type="checkbox"/> Ethernet Chipset : Realtek 8100BL <input checked="" type="checkbox"/> I/O Chipset : VIA VT82C686B <input checked="" type="checkbox"/> TV Chipset : N/A <input checked="" type="checkbox"/> Remark : QE AEC-6710 NPDP P5 Report
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

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Issue date

Wenyuan Yang

Manager

Eva Yeh

Test Engineer

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

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

Platform Information:

PCB Model / Version	PFM-550S Rev:A1.0
BIOS	AEC-6710 BIOS Rev 1.0 (10/11/2006)
Operating System	Windows 2000 Professional English Version V5.00.2195 with Service Pack 4
CPU	VIA C3 Mark 533MHz (133x4.0)
Memory	SAMSUNG / K4S560832C-TC75 / SD256MB / PC-133
Secondary IDE Master	Transcend Compact Flash 2GB
Secondary IDE Slave	N/A
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Chipset Software	VIA Service Pack 4.55v
Graphics Media	S3 Graphics Twister Ver: 6.13.10.1031(12/25/2001)
Lan Driver	Realtek RTL8139/810x Family Fast Ethernet NIC Ver: 5.398.613.2003 (7/1/2001)
Audio Driver	Realtek AC97 Audio for VIA(R) Audio Controller Ver: 5.10.0.5420 (12/19/2003)
Power Supply	LEMACS SP2-4300F 300W

Test Result for Certification

1. Dynamic / Boot_UP Burn_In Test

Test Method	Test Condition	Result		
		Pass	Fail	N/A
Diagnostics Software Burn-In Test.	0°C ~60°C, 30%RH~80%RH, 48 hrs	X		
Power On/Off Test.	0°C ~60°C, 30%RH~80%RH, 24hrs	X		
High Temperature Storage Test (Just for PPC)	60 °C (48 Hours)	X		
Low Temperature Storage Test (Just for PPC)	-20 °C (48 Hours)	X		
Humidity Test (Just for PPC)	40 °C/95%RH (48 Hours)	X		
Cold Start Test (Just for PPC)	-5 °C (Doing 50 times Power On/Off)	X		

2. Power On and Reset Test

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

3. I/O Peripheral Function Test

I/O Peripheral Function Test –I/O Function	Result		
	Pass	Fail	N/A
Floppy Connector / Driver A:			X
Primary IDE Master			X
Primary IDE Slave			X
Secondary IDE Master	X		
Secondary IDE Slave			X
Third IDE Master			X
Third IDE Slave			X
RAID 0 Function Test			X
RAID 1 Function Test			X
SATA1 / Serial ATA Connector 1			X
SATA2 / Serial ATA Connector 2			X
SATA3 / Serial ATA Connector 3			X
SATA4 / Serial ATA Connector 4			X
Compact Flash – Type I	X		
Compact Flash – Type II			X
DOC (Disk On Chip)			X
DOM (Disk On Module) – 40 Pin			X

DOM (Disk On Module) – 44 Pin			X
COM 1	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 2-Ring /+5V /+12V			X
COM 3	X		
COM 4	X		
COM 5			X
COM 6			X
PS/2 Mouse & Keyboard (Internal)			X
PS/2 Mouse & Keyboard (External)	X		
Audio Connector	X		
Audio 5.1 Channel / S/P DIF			X
LPT 1			X
LPT 2			X
SIR / 115.2 Kbps			X
FIR / 4M bps			X
USB 1/2 Ports	X		
USB 3/4 Ports			X
USB 5/6 Ports			X
USB 7/8 Ports			X
USB 2.0 1/2 Ports			X
USB 2.0 3/4 Ports			X
USB 2.0 5/6 Ports			X
USB 2.0 7/8 Ports			X
DVI Function			X
DIO Connector			X
Card Bus			X
PC/104			X
PC/104-Plus			X
PCI-104			X
CD-In Connector			X
TFT TTL LCD			X
TFT LVDS LCD			X
TV-out / S Terminal			X
TV-out / AV Terminal			X
Touch Screen – 8 Wire			X
Touch Screen – 5 Wire			X
DIMM Slots	X		
Watchdog IRQ n			X
Watchdog Software Control			X
CPU FAN Connector			X
System FAN Connector			X

Front Panel		Result		
		Pass	Fail	N/A
Power On Button				X
IDE LED				X
External Buzzer				X
On Board Buzzer				X
Power LED				X
Reset Switch				X
Keyboard Lock				X
Jumpers Function		Result		
		Pass	Fail	N/A
ATX simulates AT				X
Audio Out Selection (W/O & W/ Amplifier)				X
LCD Voltage Selection				X
COM2-Ring/5V/12V Selection				X
COM2 RS-232/422/485 Selection				X
Clear CMOS				X
Touch Screen Operating Mode Selection				X
Clock Shift of TFT LCD				X
Power Connector & Function		Result		
		Pass	Fail	N/A
ATX Power Connector				X
ATX Power_12V Connector				X
AT Power Connector (P8 & P9)		X		
Big 4P Power Connector				X
Mini 4P Power Connector				X
External Power Connector (-12/-5V)				X
Option ATX Power Connector (PS-ON / +5VSB)				X
LAN Connector & Function		Result		
		Pass	Fail	N/A
LAN Speed LED	LAN1			X
	LAN2			X
LAN Active LED	LAN1	X		
	LAN2			X
LAN Link LED	LAN1	X		
	LAN2			X
LAN 10/100 Ethernet		X		
LAN 1G Ethernet				X
PCI Connector & Function		Result		
		Pass	Fail	N/A
PCI Slots				X
PCI Express				X

4. Power Consumption Test (Run Prime95 Program)

Test Environment / Mode	ATX Power: N/A		AT Power: LEMACS SP2-4300F 300W			
	CPU:	CPU:	CPU:	CPU: VIA C3 533MHz	CPU:	CPU:
OS Environment			Windows 2000 Professional English Version V5.00.2195 Service Pack 4			
Normal Mode (+12V)	A	A	0.9	A		A
Suspend Mode (+12V)	A	A	0.91	A		A
Normal Mode (+24V)	A	A	0.48	A	-----	A
Suspend Mode (+24V)	A	A	0.48	A	-----	A
Normal Mode (+36V)	A	A	0.34	A		A
Suspend Mode (+36V)	A	A	0.34	A		A
Normal Mode (+48V)	A	A	0.27	A	-----	A
Suspend Mode (+48V)	A	A	0.27	A	-----	A

5. Power Connector Test (110V / 220V)

Test Method	Result		
	Pass	Fail	N/A
ATX Connector - Power On/Off for 10 times in DOS			X
AT Connector - Power On/Off for 10 times in DOS	X		
5V Only - Power On/Off for 10 times in DOS			X

6. Timer Accuracy Test

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

7. Network HUB / LAN Connection Test

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

8. Hardware Compatibility

CPU Compatible Test						
Type	Clock Speed	FSB	Prime95 Version	Result		
				Pass	Fail	N/A
VIA C3 533MHz			V2414	X		
			V2414			
Memory Compatibility Test						
Brand / Memory Size	Chipset	Frequency	MemTest86 Version	Result		
				Pass	Fail	N/A
SAMSUNG / 256MB	SAMSUNG K4S560832C-TC75		V1.65	X		

On Board Audio Function Test						
Audio Basic Function Test				Result		
				Pass	Fail	N/A
System Sound				X		
CD_In						X
CD_In Sound Recorder						X
Play Sound Recorder				X		
Line Out				X		
Line In				X		
Line In Sound Record				X		
MIC Speaker		Dynamic				X
		Condenser				X
MIC Sound Recorder		Dynamic				X
		Condenser				X
Audio 5.1 Channel with S/P DIF Function Test				Result		
				Pass	Fail	N/A
2-channel mode for stereo speaker output						X
4-channel mode for 4 speaker output						X
6-channel mode for 5.1 speaker output						X
S/P DIF function Test		Input				X
		Output				X
On Board TV Function Test				Result		
				Pass	Fail	N/A
NTSC		AV Terminal				X
PAL						X
NTSC		S Terminal				X
PAL						X
On Board LCD Function Test						
TFT LCD	Type	Voltage	Result			
			Pass	Fail	N/A	
LVDS	AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	3.3V			X	
	AU B104SN02 / 10.4" / 800*600 / 18bit (4:3)	3.3V			X	
	Hyundai HT12X11-200 / 12.1" / 1024*768 / 18bit (4:3)	3.3V			X	
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	3.3V			X	
	AU M170EG01 / 17" / 1280*1024 / 48bit (4:3)	5V			X	
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	5V			X	
TTL	Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3)	5V			X	
	NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3)	3.3/5V			X	
	Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3)	3.3V			X	
	LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3)	3.3V			X	
	Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3)	5V			X	
PCI Slot Function (PCI Adapter Card) Test						
Model		Type	Result			

		Pass	Fail	N/A
CECUBE GC-R9250PCI-D3 (ATI REDEON9250 256MB)	VGA Card			X
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card			X
SC3000 CMI8738/C3DX	Sound Card			X
Takram DC-395U V1.02	SCSI Card			X
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card			X
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	Capture Card			X
Intel GD82559 10/100 Mbps Fast Ethernet Adapter	LAN Card			X
Realtek RTL8139B Ethernet	LAN Card			X
D-Link DGE-530T 1000BASE-T Gigabit Ethernet Adapter	LAN Card			X
D-Link DWL-520+ Wireless LAN	LAN Card			X
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID Card			X
D-Link DU-520 USB 2.0	USB Hub Card			X
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB	SATA Card			X
PCI-Express Function Test				
Model	Result			
	Pass	Fail	N/A	
SksKonnect SK-9E21D 10/100/1000Base-T Adapter PCI-Express X1 LAN Card			X	
WinFast PX6200 TC TDH PCI-Express X16 VGA Card			X	
HDD Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
Hitachi / HDS722525VLAT80 / 250GB / ATA-100			X	
IBM / DTLA-307045 / 46.1GB / ATA-100			X	
FUJITSU / MPE 3136AH / 13.6GB / ATA-66			X	
Seagate / ST340014A / 40GB / Barracuda 7200.7			X	
Seagate / ST3160812A / 160GB			X	
Quantum / Fireball Plug AS / 30GB / ATA-100			X	
Seagate / ST310210A / 10.2GB / ATA-66			X	
Western / WD400BB-75DEA0 / 40GB / ATA-100			X	
Seagate / ST3120026AS / 120GB / ATA-100 / S-ATA			X	
CD/DVD-ROM Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
Acer DVP1640A / 16X / DVD-ROM			X	
Creative DVD1240E / 12X / DVD-ROM			X	
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM			X	
Pioneer / DVD-121 / 16X / DVD-ROM			X	

PHILIPS CDD5301 / PBC03210G / 32X10X40 / 12X DVD / CD-RW / DVD-ROM			X	
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X			X	
NEC / ND-2500A / DVD R/RW / +R8X-R8X			X	
TEAC / CD-540E / 40X / CD-ROM			X	
IDE Cable Function test				
IDE Model	Result			
	Pass	Fail	N/A	
40 Pin Cable ATA33			X	
44 Pin Cable ATA33			X	
80 Pin Cable ATA100			X	
USB Function Test				
USB Basic Function Test (USB1/2 on USBRJ1 connector)	Result			
	Pass	Fail	N/A	
USB Controller	X			
USB 2.0 Controller			X	
USB Keyboard Support			X	
USB Mouse Support			X	
USB 1.1 Compatible Test	Result			
	Pass	Fail	N/A	
USB 1.1 Compatible Test	X			
USB 2.0 Compatible Test	Result			
	Pass	Fail	N/A	
USB 2.0 Compatible Test			X	
USB 2.0 Function Test	Result			
	Pass	Fail	N/A	
Use High Speed Device USB2.0 CD-R/W Ben-Q / 4824W1-ON2 to play Nero CD/DVD Speed			X	
USB Device Full Loading Test				
Model	Type	Pass	Fail	N/A
CyberLink Power DVD XP4.0	Remote Control			X
BENQ 4824WI-ON2	CD-RW	X		
Thumb Device	Storage			X
USB HDD IBM IC25N020ATCS04-0 / 20GB / 4200RPM (1394b + USB2.0 External Box (MP-FBHUB20P-V2.0 E10-7073161D60))	HDD			X
Mitsumi FL3.5D353GUE/FUE	Floppy			X
ASUS DRW-1604P	DVD-RW			X
Floppy Disk Controller Function Test	Result			
	Pass	Fail	N/A	
Copy and compare file between C: and A / B:				X
Change Floppy to None value				X
Swap FDD				X
Peripheral Compatibility-Storage Device				

Model	Interface	Result			
		Pass	Fail	N/A	
FUJITSU MCB3064SS	SCSI			X	
IO-Mega zip 100 parallel port	Parallel			X	
IO-Mega zip 100MB Internal ATAPI Drive	IDE			X	
DOC2000 M-System / MD2200-D16				X	
PQI FC512 512MB	Type-I CF Card			X	
HITACHI / HMS360402D5CF00	Type- II CF Card			X	
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
Input Address: ()				X	
Output Address: ()				X	
VCC: ()				X	
DIO-1 Function Test				X	
DIO-2 Function Test				X	
Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules					
Interface	Model	Type	Result		
			Pass	Fail	N/A
PC/104	AAEON PCM-5600	Modem Module			X
	AAEON PCM-3115B	PCMCIA Module			X
PC/104+	AAEON PCM-3430	SCSI Module			X
PCI-104	AAEON PCM-3730	Intel 82559 LAN Module			X
On-Board SCSI Function Test					
Model	Interface	Result			
		Pass	Fail	N/A	
RICOH MP7060S	SCSI-CDROM 24X			X	
Fujitsu MCB3064SS	SCSI-MO Device			X	
Seagate 32155W	SCSI-HDD 2.15GB			X	
IBM DNES-309170	SCSI-HDD 9GB			X	
Seagate ST39205LW/P	9GB / Ultra160 / LVD			X	
COM Port Send / Receive Test		Result			
		Pass	Fail	N/A	
Use software program: COMTEST.exe				X	
Use software program: LL5.exe				X	
Disk On Module [DOM] Compatibility Test					
Model	Interface	Result			
		Pass	Fail	N/A	
DOM-256-026P Rev: A1K20	IDE 40 Pin			X	
DOM-064-426P Rev: A2A11	IDE 44 Pin			X	
Mini PCI Card Compatibility Test					
Model	Interface	Result			
		Pass	Fail	N/A	

GM-100 WLAN 11g Mini PCI Card (Model: Sky Thru GC-100)	Wireless LAN			X
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	Wireless LAN			X
PER-C200 4 Port USB 2.0 Mini PCI Card (Chip: NEC D720101GJ)	USB 2.0			X
COM/LPT Ports & RS-232/422/485 Function Test		Result		
		Pass	Fail	N/A
RS-422 for COM2		X		
RS-485 for COM2		X		
COM1		X		
COM2		X		
COM3		X		
COM4		X		
COM5				X
COM6				X
LPT1				X
LPT2				X
Card Bus(PCMCIA) Compatibility Function Test				
Model		Result		
		Pass	Fail	N/A
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)				X
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)				X
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II				X
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)				X
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II				X

9. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result		
		Pass	Fail	N/A
Linux-Red-Hat 9.0 Kernel 2.4.20-8				X
Fedora Core 4				X
Windows Server 2003 English Version / Standard Edition 5.2.3790				X
Windows XP Professional English Version V2002 Service Pack 2				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4		X		
Windows 98SE English Version V4.10.2222A				X
Windows NT Workstation 4.0 English Version Service Pack6				X
MS-DOS 6.22				X
Utility and Driver Test				
OS	Drivers Version	Result		
		Pass	Fail	N/A
Linux-Red-Hat 9.0 / Kernel 2.4.20-8	Chipset Software			X
	Graphics Media			X
	LAN Driver			X
	Audio Driver			X

Windows Server 2003 English Version / Standard Edition 5.2.3790	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 2	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	VIA Service Pack 4.55v	X		
	Graphics Media	S3 Graphics Twister Ver: 6.13.10.1031(12/25/2001)	X		
	LAN Driver	Realtek RTL8139/810x Family Fast Ethernet NIC Ver: 5.398.613.2003 (7/1/2001)	X		
	Audio Driver	Realtek AC97 Audio for VIA(R) Audio Controller Ver: 5.10.0.5420 (12/19/2003)	X		
Windows 98SE English Version V4.10.2222A	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows NT Workstation 4.0 English Version 4.00.1381 Service Pack6	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X

10. BIOS Function Test

Test Item	Result		
	Pass	Fail	N/A
Memory Beep Test			X
Standard CMOS Setup Test			X
Boot Sequence Test	X		
Power Management Test			
APM Power Management Test	X		
ACPI Power Management Test			X
Power On Function Test			X
Wake Up Event Test			X
Power On after Power Failure Test			X
CMOS Backup / Clear CMOS Test			X
Boot ROM Test (RPL/PXE)			X
Supervisor / User Password Test	X		
CRT / LCD / TV Function Test	X		
TV Standard Function Test			X
Init Display First Function Test			X
On-Chip Serial ATA Function Test			X
SATA Mode-IDE/RAID Function Test			X
PC Health Status			
Voltage Monitor Test	X		
FAN Speed Monitor Test	X		

Temperature Monitor Test	X		
Swap Floppy Drive & Boot up Floppy Seek Function Test			X
USB Onboard Device Function Test			X
COM Address / IRQ Test	X		
LPT Address / IRQ Test			X
BIOS AWDFLASH Program Test	X		