

Product Certification Report

Release No : 04I010015

Product Model	FSB-860B
Product Description	Full-size PICMG CPU Card. Socket 478 Pentium 4 Processor CPU Card. with VGA / two Ethernet. /Audio/CFD/5USBs/ATX
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : FSB-860B Rev:A0.2 <input checked="" type="checkbox"/> BIOS : FSB-860B BIOS Rev: 1.0 (11/03/2004) <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 :

2004-11-30

Issue date

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Manager

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Test Engineer

Test Result for Certification

Installation Operation System Compatible Test	Result
Linux –RedHat 9.0 / Kernel 2.4.20-8	Pass
Windows XP Professional English Version / 2002	Pass
Windows 2000 Professional English Version /2.00.2195	Pass
Windows 98SE English Version /4.10.2222A	Pass
Utility and Driver Test	Result
RedHat Linux 9.0 Hardware compatible list for VGA	Default
RedHat Linux 9.0 Hardware compatible list for LAN	Default
RedHat Linux 9.0 Hardware compatible list for Audio	Default
VGA for Windows 98SE (Intel® 82845G/GL/GE/PE/GV/ Driver Ver.4.14.10.3722.)	Pass
VGA for Windows XP (Intel® 82845G/GL/GE/PE/GV/ Driver Ver.6.14.10.3722)	Pass
VGA for Windows 2000P(Intel® 82845G/GL/GE/PE/GV/ Driver Ver.6.14.10.3722)	Pass
AUDIO for Windows 98SE(Realtek ALC655 AC'97 Audio / Driver Ver. 5.10.5420.)	Pass
AUDIO for Windows XP (Realtek ALC655 AC'97 Audio / Driver Ver.5.10.0.5700)	Pass
AUDIO for Windows 2000P (Realtek ALC655 AC'97 Audio / Driver Ver.5.10.0.5700)	Pass
LAN1 for Windows 98SE(Intel® PRO/100M / Driver Ver..4.10.2222)	Pass
LAN2 for Windows 98SE(Intel® PRO/100VE / Driver Ver.4.10.2222)	Pass
LAN1 for Windows XP (Intel® PRO/100M / Driver Ver.7.0.26.0)	Pass
LAN2 for Windows XP (Intel® PRO/100VE / Driver Ver.7.0.26.0)	Pass
LAN1for Windows 2000P (Intel® PRO/100M / Driver Ver.7.0.26.0)	Pass
LAN2 for Windows 2000P (Intel® PRO/100VE / Driver Ver.7.0.26.0)	Pass
BIOS Function Test	Result
Standard CMOS Setup Test	Pass
Boot Sequence Test	Pass
APM Power Manager Test	Pass
ACPI Power Manager Test	Pass
Wake Up Event Test	Pass
CMOS Backup / Clear CMOS Test	Pass
Boot ROM Test (RPL/PXE)	Pass
Supervisor / User Password Test	Pass
Boot Display - CRT Function Test	Pass
Init Display First Function Test	Pass
Voltage Monitor Test	Pass
FAN Speed Monitor Test	Pass
Temperature Monitor Test	Pass
Swap Floppy Drive & Boot up Floppy Seek Function Test	Pass
USB Onboard Device Function Test	Pass
COM Address / IRQ Test	Pass
LPT Address / IRQ Test	Pass
BIOS Awdflash Program Test	Pass

Dynamic / Boot_UP Burn_In Test	Test Condition	Result
Diagnostics Software Burn-In Test.	0°C~60°C, 48 hrs	Pass
Power On/Off Test.	0°C~60°C, 24hrs	Pass
220V Power Function Test.	Room Temperature	Pass
Voltage Range Test – 210V Power Function Test	Room Temperature	Pass
Voltage Range Test – 100V Power Function Test	Room Temperature	Pass
Keyboard Reset Test.	20 Times , DOS Mode	Pass
Windows HCT / 9.5 System Stress Test.		Pass
I/O Peripheral Function Test – I/O Function		Result
Floppy Connector / Driver A: & B:		Pass
Primary IDE Master		Pass
Primary IDE Slave		Pass
DOM (Disk On Module) - 40Pin		Pass
COM1		Pass
COM2		Pass
Clear CMOS		Pass
PS/2 Mouse & Keyboard (External)		Pass
LPT1 – Printer Type : HP Photo Smart P1000		Pass
USB 1 & 2 Ports		Pass
USB 3 & 4 ,5Ports		Pass
VGA Display		Pass
Compact Flash Card		Pass
Watchdog Software Control		Pass
I/O Peripheral Function Test – Front Panel & Function		Result
On Board Buzzer		Pass
CPU FAN Connector		Pass
System FAN Connector		Pass
I/O Peripheral Function Test – Power Connector & Function		Result
ATX Power Connector		Pass
I/O Peripheral Function Test – LAN Connector & Function		Result
LAN Speed LED		Pass
LAN Active LED		Pass
LAN Link LED		Pass
LAN 10/100 Ethernet		Pass
I/O Peripheral Function Test – PCI Connector & Function		Result
PCI Slots		Pass
Power Consumption Test (Pentium 4 CPU 2.40GHz)		Result
Normal Mode (+5V)		2.19 A
Suspend mode (-5V)		1.66 A
5VSB / (ATX Power)(Power off Mode)		0.1
Normal Mode (+3.3V)		0.02 A
Suspend mode (-3.3V)		0.02 A
Normal Mode (+12V)		3.88 A
Suspend mode (-12V)		1.36 A

Power Connector Test (110V/220V)		Voltage Range	Result	
ATX Power (+5V)		4.75V~5.25V	Pass	
ATX Power (+12V)		11.4V~12.6V	Pass	
Timer Accuracy Test			Result	
RTC Timer Accuracy of +/-1 sec per day.			Pass	
System Clock Accuracy of +/-1 sec per day.			Pass	
Watchdog Timer Accuracy of +/-20% sec per minute.			Pass	
Network HUB/LAN Connects Test (LAN)			Result	
HUB	Type	Speed		
	HP J4095A 24 Ports	10/100 Mbps	Pass	
	D-Link DGS-1008T	10/100 Mbps	Pass	
	Intel Inbusiness 8 Ports	10/100 Mbps	Pass	
	LEMEL LM-S5 5 Ports	10/100 Mbps	Pass	
	Accton Desktop-3005	10/100 Mbps	Pass	
	SVEC FD916H	10 Mbps	Pass	
LED Indicator Lights Function		LAN LED	Pass	
Touch Screen LCD for Serial Ports Test		Address	IRQ	Result
COM1		3F8	4	Pass
COM2		2F8	3	Pass
CPU Compatible Test (Windows 2000P)				
CPU Speed		FSB	sSpec#	Result
Pentium IV / 3.0G		133		Pass
Pentium IV / 2.4G		100		Pass
Pentium IV / 2.4G		133		Pass
Pentium IV / 2AG		100		Pass
Memory Test		Speed	Size	Result
PQI / PQ3D328D60335CU		DDR-333	256MB	Pass
KINGSTON / D3208DL1T-6		DDR-333	256MB	Pass
KINGSTON / D3208DL1T-6		DDR-333	256MB	Pass
MOSEL / V58C2256804SAT5B		DDR-400	512MB	Pass
Transcend / V58C2256804SAT5B		DDR-400	512MB	Pass
SAMSUNG / K4H560438E-GCCC		DDR-400	1G	Pass
SAMSUNG / K4H560438E-GCCC		DDR-400	1G	Pass
Hynix / HY5DU56822AT-H		DDRT-266	512MB	Pass
ELPIDA / DD2516AKTA-7A		DDR-266	128MB	Pass
Kingston / D328DL-60		DDR-266	512MB	Pass
PCI Slot Function (PCI Adapter Card) Test		Type	Interface	Result
GeForce4 MX-440-8X		VGA Card	PCI	Pass
Creative Sound BLASTER Live5.1		Sound Card	PCI	Pass
D-Link FE-530TX Fast Ethernet		LAN Card	PCI	Pass
Intel SB82559 10/100 Mbps		LAN Card	PCI	Pass
D-Link DGE-530T 1000BASE-T Gigabit Ethernet		LAN Card	PCI	Pass
Genuine GM56-AM12019		Modem Card	PCI	Pass
ABIT HotRod 100 Pro		RAID Card	PCI	Pass

APTEC / ASC-29160	SCSI Card	PCI	Pass
Takram DC-395U V1.02	CSI Card	PCI	Pass
D-Link DU-520 USB 2.0	USB Card	PCI	Pass
Tekram TR-822 Serial ATA 150	SATA Card	PCI	Pass
HDD Compatible Test	Size	Speed	Result
IBM / IC35L180AVV207-1	185.2GB	ATA-133	Pass
IBM / DTLA-307045	46.1GB	ATA-33	Pass
Fujitsu / MPE 3136AH	13.6GB	ATA-66	Pass
Maxtor / 94098U8	40GB	ATA-66	Pass
Maxtor / D740X-6L	40GB	ATA-100	Pass
Maxtor / 4G160J8	160GB	ATA-133	Pass
Quantum / Fireball Plug AS	30GB	ATA-100	Pass
Seagate / ST301021A	10.2GB	ATA-66	Pass
Western / WD200EB-OOC PFO	40GB	ATA-100	Pass
CD-ROM / DVD-ROM Test	Type	Speed	Result
ACER DVP1640A	DVD-ROM	16X	Pass
AFREY CD-2052E	CD-ROM	52X	Pass
BENQ 652A-674	CD-ROM	52X	Pass
CREATIVE PC-DVD	DVD-ROM	12X	Pass
IBM GCR-8480B	CD-ROM	48X	Pass
PIONEER /DVD-121	CD-ROM	16X	Pass
PHILIPS PBC03210G	CD-RW/ DVD ROM	32X10X40/ 12X	Pass
SONY CDU4811-81	CD-ROM	48X	Pass
Installation Windows XP O.S from USB CDRom Device	USB CD-ROM	48X24X48X	Pass
USB Basic Function Test			Result
CMOS USB Function			Pass
CMOS USB Keyboard			Pass
CMOS USB Mouse			Pass
System Booting Test			Pass
USB Extention Device Function Test	Type		Result
CyberLink Power DVD XP4.0	Remote Control		Pass
BENQ 4824WI-ON2	CD-RW		Pass
PLEXTIR PX-S88TU	CD-RW		Pass
Fujitsu USB 2.0 High Speed device (2.5" MHN2100AT)	HDD		Pass
IOMEGA ZIP 100MB	ZIP		Pass
Mitsumi FL3.5D353GUE/FUE	Floppy		Pass
Floppy Disk Controller Function Test			Result
Copy and Compare File Between C: and A/B			Pass
Chang BIOS Floppy is NONE value			Pass
SWAP FDD			Pass

Peripheral Compatibility-Storage Device	Interface	Result
iomega zip 100 parallel port	Parallel	Pass
iomega zip 100MB Internal ATAPI Drive	IDE	Pass
PQI / FC256 256 MB Compact Flash Card	Type I	Pass
HITACHI MicroDrive 1GB	Type II	Pass
COM Port Send & Receive Test		Result
COM1 of 50 Meters		Pass
COM2 of 50 Meters		Pass
Disk On Module [DOM] Compatibility Test	Interface	Result
DOM-256-026P Rev. A1k20	IDE 40 Pin	Pass
Wireless LAN Compatibility Test	Interface	Result
D-Link DWL-520+ Wireless LAN	PCI	Pass
System Integer Application Test		Result
System Integer Application Test (Burn-in 8 Hrs.)		Pass
System Integer Power Consumption Test		Result
Normal Mode(+5V)		3.37 A
Normal Mode(+12V)		4.08A
Normal Mode(+3.3V)(ATX Power)		1.23A
Windows 2000 + SP4 O.S.		Result
Performance Test – CPU Pentium-IV 2.40G , DDR RAM 256MB		
WinBench 99 V2.0-- Business Graphics WinMark 99		344
WinBench 99 V2.0 -- High-End Graphics WinMark 99		634
WinBench 99 V2.0 – Business Disk WinMark99		14400
WinBench 99 V2.0 – High End Disk WinMark99		39200
3D WinBench 2000 V1.1 Processor Test -- DirectX 9.0 b/ 1024x768x32Bits		45.1
Content Creation Winstone 2004 -- DirectX 9.0b / 1024x768x32Bits		16.9
Final Reality V1.01 BenchMark Test -- 2D image (DirectX 9.0b / 1024x768x32Bits)		17.88
Final Reality V1.01 BenchMark Test -- 3D (DirectX 9.0b / 1024x768x32Bits)		5.81
Final Reality V1.01 BenchMark Test -- Bus transfer (DirectX 9.0 / 1280x1024x32Bits)		17.18
Final Reality V1.01 BenchMark Test -- Overall (DirectX 9.0b / 1024x768x32Bits)		11.14
3Dmark2001SE Pro-- 3Dmark2001SE Build 330_Benchmark (1024x768x32Bits)		3584
Business WinStone 2004 V1.0.1 --DirectX 9.0b / 1024x768x32Bits		42.5