

Product Certification Report

Release No : 05I010006

Product Model	HSB-835P
Product Description	Intel Pentium 4 PICMG / PCI Half-Size SBC
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : HSB-835P Rev:A0.1 <input checked="" type="checkbox"/> BIOS: HSB-835P BIOS Rev: 0.2 <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 :

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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	
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 XP (Intel® 82865G Graphics Driver Ver.6.14.10.3722)		Pass	
VGA for Windows 2000P(Intel® 82865G Graphics Driver Ver.6.14.10.3722)		Pass	
AUDIO for Windows XP (Realtek ALC655 AC'97 Audio / Driver Ver.5.10.0.5530)		Pass	
AUDIO for Windows 2000P (Realtek ALC655 AC'97 Audio / Driver Ver.5.10.0.5530)		Pass	
LAN for Windows XP (Intel® PRO/100 VE / Driver Ver.7.0.26.0)		Pass	
LAN for Windows 2000P (Intel® PRO/100 VE / 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	
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
SATA1 / Serial ATA Connector 1	Pass
SATA2 / Serial ATA Connector 2	Pass
Compact Flash Card	Pass
Watchdog Software Control	Pass
I/O Peripheral Function Test – Front Panel & Function	Result
Power On Button	Pass
IDE LED	Pass
External Buzzer	Pass
On Board Buzzer	Pass
Power LED	Pass
Reset Switch	Pass
CPU 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 3.20GHz)	Result
Normal Mode (+5V)	2.38 A
Suspend mode (-5V)	2.22 A
5VSB / (ATX Power)(Power off Mode)	0A
Normal Mode (+3.3V)	0.27 A
Suspend mode (-3.3V)	0.27 A
Normal Mode (+12V)	4.32 A
Suspend mode (-12V)	1.62 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 / 3.20 G			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
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
Seagate / ST3120026AS (SATA)	120 G	ATA-100	Pass
Western / WD200EB-OOC PFO	40GB	ATA-100	Pass
CD-ROM / DVD-ROM Test		Type	Speed
ACER DVPI640A	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
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)		4.33 A
Normal Mode(+12V)		5.37A
Normal Mode(+3.3V)(ATX Power)		0.20A
Windows 2000 + SP4 O.S.		Result
Performance Test – CPU Pentium-4 2.40GHz , DDR RAM 256MB		
WinBench 99 V2.0-- Business Graphics WinMark 99		516
WinBench 99 V2.0 -- High-End Graphics WinMark 99		949
WinBench 99 V2.0 – Business Disk WinMark99		8460
WinBench 99 V2.0 – High End Disk WinMark99		35200
3D WinBench 2000 V1.1 Processor Test -- DirectX 9.0 b/ 1024x768x32Bits		77
Content Creation Winstone 2004 -- DirectX 9.0b / 1024x768x32Bits		25.3
Final Reality V1.01 BenchMark Test -- 2D image (DirectX 9.0b / 1024x768x32Bits)		25.47
Final Reality V1.01 BenchMark Test -- 3D (DirectX 9.0b / 1024x768x32Bits)		7.36
Final Reality V1.01 BenchMark Test -- Bus transfer (DirectX 9.0 / 1280x1024x32Bits)		25.60
Final Reality V1.01 BenchMark Test -- Overall (DirectX 9.0b / 1024x768x32Bits)		15.68
Business WinStone 2004 V1.0.1 --DirectX 9.0b / 1024x7684x32Bits		23.4