

# Product Certification Report

Release No : 05I100001

<b>Product Model</b>	<b>HSB-835A</b>
<b>Product Description</b>	<b>Half-Size APCI CPU Card. Socket 478 Pentium 4 Processor CPU Card. with VGA / one Ethernet / Audio / CFD / 7 USB</b>
<b>Test Reason</b>	<input checked="" type="checkbox"/> <b>New product</b> <input checked="" type="checkbox"/> <b>PCB : HSB-835A Rev:A0.2</b> <input checked="" type="checkbox"/> <b>BIOS: HSB-835A BIOS Rev: 1.0 (2004/12/24)</b>  <input type="checkbox"/> <b>Renew product</b> <input type="checkbox"/> <b>PCB :</b> <input type="checkbox"/> <b>BIOS :</b>  <input type="checkbox"/> <b>Revision change</b> <input type="checkbox"/> <b>PCB :</b> <input type="checkbox"/> <b>BIOS :</b> <input type="checkbox"/> <b>Component :</b>

2005-01-14

Issue date

Wenyuan Yang

Manager

Andrew Ku

Test Engineer

## Test Result for Certification

<b>Installation Operation System Compatible Test</b>		<b>Result</b>	
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	
<b>Utility and Driver Test</b>		<b>Result</b>	
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	
<b>BIOS Function Test</b>		<b>Result</b>	
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	
<b>Dynamic / Boot_UP Burn_In Test</b>		<b>Test Condition</b>	<b>Result</b>
Keyboard Reset Test.		20 Times , DOS Mode	Pass
Windows HCT / 9.5 System Stress Test.			Pass
<b>I/O Peripheral Function Test – I/O Function</b>		<b>Result</b>	
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	
<b>I/O Peripheral Function Test – Front Panel &amp; Function</b>	<b>Result</b>	
Power On Button	Pass	
IDE LED	Pass	
External Buzzer	Pass	
On Board Buzzer	Pass	
Power LED	Pass	
Reset Switch	Pass	
CPU FAN Connector	Pass	
<b>I/O Peripheral Function Test – Power Connector &amp; Function</b>	<b>Result</b>	
ATX Power Connector	Pass	
<b>I/O Peripheral Function Test – LAN Connector &amp; Function</b>	<b>Result</b>	
LAN Speed LED	Pass	
LAN Active LED	Pass	
LAN Link LED	Pass	
LAN 10/100 Ethernet	Pass	
<b>I/O Peripheral Function Test – PCI Connector &amp; Function</b>	<b>Result</b>	
PCI Slots	Pass	
<b>Power Consumption Test (Pentium 4 CPU 2.40GHz)</b>	<b>Result</b>	
Normal Mode (+5V)	2.38 A	
Suspend mode (-5V)	2.22 A	
5VSB / (ATX Power)(Power off Mode)	0.1 A	
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	
<b>Power Connector Test (110V/220V )</b>	<b>Voltage Range</b>	<b>Result</b>
ATX Power (+5V)	4.75V~5.25V	Pass
ATX Power (+12V)	11.4V~12.6V	Pass
<b>Timer Accuracy Test</b>	<b>Result</b>	
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
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

<b>HDD Compatible Test</b>	<b>Size</b>	<b>Speed</b>	<b>Result</b>
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-OOCPFO	40GB	ATA-100	Pass
<b>CD-ROM / DVD-ROM Test</b>	<b>Type</b>	<b>Speed</b>	<b>Result</b>
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
<b>USB Basic Function Test</b>			<b>Result</b>
CMOS USB Function			Pass
CMOS USB Keyboard			Pass
CMOS USB Mouse			Pass
System Booting Test			Pass
<b>USB Extention Device Function Test</b>	<b>Type</b>	<b>Result</b>	
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	
<b>Floppy Disk Controller Function Test</b>			<b>Result</b>
Copy and Compare File Between C: and A/B			Pass
Chang BIOS Floppy is NONE value			Pass
SWAP FDD			Pass
<b>Peripheral Compatibility-Storage Device</b>		<b>Interface</b>	<b>Result</b>
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

<b>COM Port Send &amp; Receive Test</b>		<b>Result</b>
COM1 of 50 Meters		Pass
COM2 of 50 Meters		Pass
<b>Disk On Module [DOM] Compatibility Test</b>	<b>Interface</b>	<b>Result</b>
DOM-256-026P Rev. A1k20	IDE 40 Pin	Pass
<b>Wireless LAN Compatibility Test</b>	<b>Interface</b>	<b>Result</b>
D-Link DWL-520+ Wireless LAN	PCI	Pass
<b>System Integer Application Test</b>		<b>Result</b>
System Integer Application Test (Burn-in 8 Hrs.)		Pass
<b>System Integer Power Consumption Test</b>		<b>Result</b>
Normal Mode(+5V)		4.33 A
Normal Mode(+12V)		5.37A
Normal Mode(+3.3V)(ATX Power)		0.20A
<b>Windows 2000 + SP4 O.S. Performance Test – CPU Pentium-4 2.40GHz , DDR RAM 256MB</b>		<b>Result</b>
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 / 1024x768x32Bits		23.4