

Product Certification Report

Release No: 05I010001

Product Model	HSB-810A-A02 & HSB-810A-A02-01
Product Description	AIO APCI Half-Size SBC.Pentium-M.LVDS.10/100BaseTx.Rev.A1.0 & AIO APCI Half-Size SBC.Pentium-M.LVDS.10/100/1000BaseTx.Mini-PCI.CFD.Rev.A0.1
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB: HSB-810A Rev: A0.1 <input checked="" type="checkbox"/> BIOS: HSB-810A BIOS Rev:0. 5 (5/17/2004) <input checked="" type="checkbox"/> Renew product <input checked="" type="checkbox"/> PCB: HSB-810A Rev: A0.2 <input checked="" type="checkbox"/> BIOS: HSB-810A BIOS Rev: 0.B (11/11/2004) <input type="checkbox"/> Revision change <input type="checkbox"/> PCB: <input type="checkbox"/> BIOS: <input type="checkbox"/> Component: <input checked="" type="checkbox"/> Chipset: <input checked="" type="checkbox"/> North Bridge: Intel RG82855GME / SL721 / S405A706 <input checked="" type="checkbox"/> South Bridge: Intel FW82801DB (ICH4) / F347TB07 / SL6DM <input checked="" type="checkbox"/> Audio Chipset: Realtek ALC655/35113Q1/321D <input checked="" type="checkbox"/> Ethernet Chipset: Intel 82541GI / LY335SY86 Intel 82562EZ / L335SW77 <input checked="" type="checkbox"/> I/O Chipset: Intel 82801DB(ICH4)+ITE8712F-A

2005/01/10

Wenyuan Yang

Milo Wang

Issue date

Manager

Test Engineer

Test Result for Certification

Installation Operation System Compatible Test	Result
Linux –Red Hat 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 Server 2003 English/Standard Edition 5.2.3790	Pass
Utility and Driver Test	Result
Red Hat Linux 9.0 Hardware compatible list for VGA	Default
Red Hat Linux 9.0 Hardware compatible list for LAN	Default
Red Hat Linux 9.0 Hardware compatible list for Audio	Default
Red Hat Linux 9.0 hardware compatible list for SCSI	Default
VGA for Windows XP (Intel 82852/82855GM/GME Graphics controller / Driver Ver.6.14.10.3732)	Note ¹
VGA for Windows 2000P (Intel 82852/82855GM/GME Graphics controller / Driver Ver.6.14.10.3732)	Note ¹
LAN for Windows Server 2003(Intel PRO/1000 MT Network Connection / Driver Ver.7.3.13.0 10/28/2003)	Pass
LAN for Windows Server 2003(Intel PRO/100VE Network Connection / Driver Ver6.6.8.1 10/1/2002)	Pass
LAN for Windows XP (Intel PRO/1000 MT Network Connection / Driver Ver.7.3.13.0 10/28/2003)	Pass
LAN for Windows XP (Intel PRO/100VE Network Connection / Driver Ver7.1.8.0 10/28/2003)	Pass
LAN for Windows 2000P(Intel PRO/1000 MT Network Connection / Driver Ver.7.3.13.0 10/28/2003)	Pass
LAN for Windows 2000P(Intel PRO/100VE Network Connection / Driver Ver7.1.8.0 10/28/2003)	Pass
Audio for Windows XP (RealtekAC'97 Audio / Driver Ver5.10.0.5580 5/14/2004)	Pass
Audio for Windows 2000P(RealtekAC'97 Audio / Driver Ver5.10.0.5580 5/14/2004)	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/LCD 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 AWD flash Program Test		Pass
Dynamic / Boot UP Burn In Test	Test Condition	Result
Diagnostics Software Burn-In Test.	0 ~60 , 48 hrs	Pass
Power On/Off Test.	0 ~60 , 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 7.2 / 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
Secondary IDE Master		Pass
Secondary IDE Slave		Pass
Compact Flash-Type		Pass
Compact Flash-Type		Pass
DOM-40Pin		Pass
COM1		Pass
COM2-232		Pass
COM2-422		Pass
COM2-485		Pass
Clear CMOS		Pass
PS/2 Mouse & Keyboard (External)		Pass
Audio Connector		Pass
LCD Voltage 5V/3.3V Selection		Pass
LPT1 – Printer Type: HP Photo Smart P1000		Pass
SIR / 115.3 Kbps		Pass
USB 1 & 2 Ports		Pass
USB 3 Ports		Pass
USB 4 & 5 Ports		Pass
VGA Display		Pass
LCD / LVDS		Pass
DIMM Slots		Pass
Watchdog Software Control		Pass
AGP Slot (Backplane)		Note ²
I/O Peripheral Function Test – Power Connector & Function		Result
ATX Power Connector		Pass
ATX Power_12V Connector		Pass
4P Power Connector		Pass
Mini 4P Power Connector		Pass
Option ATX Power Connector (PS-ON / +5VSB)		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
Ext. K/B Connector		Pass
Internal K/B Connector		Pass
CPU FAN Connector		Pass
I/O Peripheral Function Test – LAN Connector & Function		Result
LAN Active LED (Intel 8254GI and Intel 82562EZ)		Pass
LAN Link LED (Intel 8254GI and Intel 82562EZ)		Pass
LAN 10/100Ethernet(Intel 8254GI and Intel 82562EZ)		Pass
LAN 1GEthernet(Intel 8254GI)		Pass
On Board Audio Function Test		Result
System Sound		Pass
Play CD_IN		Pass
Play Sound Recorder		Pass
Line Out		Pass
Line In		Pass
Line In Sound Recorder		Pass
Mic Speaker–Dynamic/ Condenser		Pass
Mic Sound Recorder–Dynamic/ Condenser		Pass
Play VCD 10mins		Pass
Power Consumption Test		Result
Normal Mode (+5V)		2.81A
Suspend Mode (+5V)		0.45A
Normal Mode (+12V)		2.73A
Suspend Mode (+12V)		0.48A
5VSB Mode – ATX Power Supply		0.23A
Normal Mode (-12V)		0.38A
Suspend Mode (-12V)		0.35A
Normal Mode (+3.3V) –ATX Power Supply		0.97A
Suspend Mode (+3.3V)-ATX Power Supply		0.95A
Power Connector Test (110V/220V)		Result
ATX Power (+5V)	Voltage Range 4.75V~5.25V	Pass
ATX Power (+12V)	11.4V~12.6V	Pass
ATX Power (+3.3V)	3.135~3.465V	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 (LAN1/LAN2)			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
	Acc ton Desktop-3005	10/100 Mbps	Pass
	SVEC FD916H	10 Mbps	Pass
LED Indicator Lights Function		LAN LED (Intel 8254GI and Intel 82562EZ)	Pass
Touch Screen LCD for Serial Ports Test		Address	IRQ
COM1		3F8	IRQ4
COM2		2E8	IRQ3
CPU Compatible Test (Windows 2000P)			
CPU Speed			Result
Intel/Celeron-M1.6GHz			Pass
Intel/Celeron-M1.4GHz			Pass
Memory Test	Speed	Size	Result
ELPIDA/EBD26UC6AKSA-6B	DDR333	256MB	Pass
HUNIX/HY5DU121622AT-J	DDR333	512MB	Pass
TRANSCEND/HB-DDR266/128MB(TS)	DDR266	128MB	Pass
NANYA/NT1GD64S8HA1FM-75B	DDR266	1GB	Pass
HDD Compatible Test	Size	Speed	Result
IBM / DTLA-307045	46.1GB	ATA-33	Pass
Maxtor / 54610H6/160G/ATA-133	160GB	ATA-133	Pass
Quantum / Fireball Plug AS	30GB	ATA-100	Pass
Seagate / ST301021A	10.2GB	ATA-66	Pass
Western/WD400BB-75DEA0	40GB	ATA-100	Pass
CD-ROM / DVD-ROM Test	Type	Speed	Result
ACER DVP1640A	DVD-ROM	16X	Pass
CREATIVE PC-DVD	DVD-ROM	12X	Pass
IBM GCR-8480B	CD-ROM	48X	Pass
PIONEER /DVD-121	CD-ROM	16X	Pass
PHILIPSPBC03210G	CD-RW/ DVD ROM	32X10X40/ 12X	Pass
NEC / ND-2500A	DVD R/RW	+R8X-R8X	Pass
SAMSUNG / SH-W08	DVD+ / -R 8X	8X8X32X	Pass
SONY CDU4811-81	CD-ROM	48X	Pass
TEAC CD-540E	CD-ROM	40X	Pass
Installation Windows 2000 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 Cable of 1.8 Meters (USB1.1and USB2.0)	Pass				
Compatible Test	Pass				
USB 2.0 Function Test	USB 1 & 2 Ports	Pass			
	USB 3 Ports	Pass			
	USB 4 & 5 Ports	Pass			
USB Extention Device Function Test		Type	Result		
Cyber Link 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"IBM2060AT)	HDD	Pass			
IOMEGA ZIP 100MB	ZIP	Pass			
Mitsumi FL3.5D353GUE/FUE	Floppy	Pass			
Peripheral Compatibility-Storage Device		Interface	Result		
FUJITSU MCB3064SS	SCSI	Pass			
IO mega zip 100 parallel port	Parallel	Pass			
IO mega zip 100MB Internal ATAPI Drive	IDE	Pass			
PQI FC256 256 MB Compact Flash Card	Type	Pass			
HITACHI Micro Drive 1GB	Type	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			
ANATEL 2001AJ0673 Mini PCI 802.11b	Mini PCI	Pass			
RTL8180L	Mini 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)	3.09A				
Normal Mode (+12V)	1.28A				
Normal Mode (+3.3V)	0.85A				
On Board LCD Function Test	Bit	Size	Resolution	Mode	Result
HYUNDAI HT17E11-300	48	17"	1280*1024	LVDS	Pass
HYUNDAI HT12X11-200	18	12.1"	1024*768	LVDS	Pass
SAMSUNG LTM150XH-L04	24	15"	1024*768	LVDS	Pass

PCI Slot Function (PCI Adapter Card) Test	Type	Interface	Result
GeForce4 MX-440-8X	VGA Card	PCI	Pass
Adaptec ASC-29160	SCSI Card	PCI	Pass
Takram DC-395U V1.02	SCSI Card	PCI	Pass
D-Link FE-530TXFast Ethernet	LAN Card	PCI	Pass
Intel SB82559 10/100 Mbps	LAN Card	PCI	Pass
Genuine GM56-AM12019	Modem Card	PCI	Pass
ABIT Hot Rod 100 Pro	RAID Card	PCI	Pass
Windows 2000 + SP4 O.S. Performance Test			Result
Win Bench 99 V2.0-- Business Graphics Win Mark 99			320
Win Bench 99 V2.0 -- High-End Graphics Win Mark 99			812
Win Bench 99 V2.0 – Business Disk WinMark99			6310
Win Bench 99 V2.0 – High End Disk WinMark99			21100
3D Win Bench 2000 V1.1 Processor Test -- DirectX 9.0 b/ 1024x768x32Bits			3.9
Content Creation Win stone 2004 -- DirectX 9.0b / 1024x768x32Bits			92.6
Final Reality V1.01 Bench Mark Test -- 2D image (DirectX 9.0b / 1024x768x32Bits)			26.41
Final Reality V1.01 Bench Mark Test -- 3D (DirectX 9.0b / 1024x768x32Bits)			1.41
Final Reality V1.01 Bench Mark Test-- Bus transfer (DirectX 9.0 / 1280x1024x32Bits)			45.66
Final Reality V1.01 Bench Mark Test -- Overall (DirectX 9.0b / 1024x768x32Bits)			15.11
Business Win Stone 2004 Scores V1.0.1 --DirectX 9.0b / 1024x7684x32Bits			14.5
Business Win Stone 2004 V1.0.1 --DirectX 9.0b / 1024x7684x32Bits			1.2

Result Summary
<p>Note¹ [In Win2000 Pro and WinXP Pro] When CRT+LCD,CRT has no display after installing VGA driver and restart until pressing Cter+Alt+F1</p> <p>Note² [BP-204SA-P2 A1.0 with 810A-A01-05 in it] It would cause OS hang up when inserting AGP Card(ATI RADEON VE AGP 4X/2X/1X) in Backplane</p>