

# Mainboard

## Product Certification Report

Release No : 03E010204

<b>Product Model</b>	<b>HSB-660S</b>
<b>Product Description</b>	AIO Half-size PISA CPU Card.FC-PGA2.TFT/DSTN LCD. I82551ER+RTL8110S.PC104.AC97.CF.DOC.Rev A0.2 AIO Half-size PISA CPU Card.FC-PGA2.TFT/DSTN LCD. RTL8139DL+RTL8100C.PC104.AC97.CF.DOC.Rev A0.2
<b>Test Reason</b>	<input checked="" type="checkbox"/> <b>New product</b> <input checked="" type="checkbox"/> PCB : HSB-660S Rev.A0.2 <input checked="" type="checkbox"/> BIOS: HSB-660S BIOS Rev.0.1 (05/16/2003) HSB-660S BIOS Rev.0.2 HSB-660S BIOS Rev.0.3(08/11/2003) HSB-660S BIOS Rev.1.0(08/22/2003)  <input type="checkbox"/> <b>Renew product</b> <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS:  <input type="checkbox"/> <b>Revision change</b> <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Component:  <input checked="" type="checkbox"/> <b>General Function</b> <input checked="" type="checkbox"/> <b>Chipset: VIA VT8606 + 686B</b> North Bridge: VIA VT8606 South Bridge: VIA VT686B  <input checked="" type="checkbox"/> <b>Audio Chipset: ALC 201</b> <input checked="" type="checkbox"/> <b>Ethernet Chipset: Intel 82551ER / Realtek 8110S +</b> Realtek RTL8100C / Realtek RTL8139DL  <input checked="" type="checkbox"/> <b>I/O Chipset: VIA VT8606 + 686B</b>

**2003-8-15**

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*Issue date*

*AVP.*

*Test Engineer*

## Test result for certification

<b>Stability Test - Dynamic / Boot_UP Burn_In Test</b>	<b>Result</b>	
Dynamic Burn-In test. (Qaplusfe 5.5 Operating at 0°C ~60°C for 48hours)	PASS	
Dynamic Burn-In test. (Power On/Off Operating at 0°C ~60°C for 24hours)	PASS	
Audio Play For Sound Codec Chipset Burn-In Test .( Operating at 0°C & 60°C for 2hours)	PASS	
LAN Chipset Burn_In Test. ( Operating at 0°C & 60°C for 2hours)	PASS	
Boot_Up Burn_In Test .( Operating at Room Temp.)	PASS	
<b>Timer Accuracy Test</b>	<b>Result</b>	
System clock accuracy of +/-5 sec per day.	PASS	
RTC timer accuracy of +/-3 sec per day.	PASS	
<b>Margin Test – Power Consumption – PIII 1G , SDRAM 128MB</b>	<b>Result</b>	
Electrical characteristics – Normal Mode(+3.3V)	1.98	A
Electrical characteristics – Standby Mode(+3.3V)	2.06	A
Electrical characteristics – Normal Mode(+5V)	4.88	A
Electrical characteristics – Standby Mode(+5V)	4.19	A
Electrical characteristics – Normal Mode(+12V)	0.20	A
Electrical characteristics – Standby Mode(+12V)	0.12	A
Power VCC 4.75V to 5.25V Margin test .	PASS	
Power Connector Test – AT Power To ATX Motherboard	PASS	
<b>Network HUB / LAN Connects Test</b>	<b>Result</b>	
LAN1 HP J4095A 24Ports [ 100 /10 Mbps ]	PASS	
LAN1 D-Link DES-1008 [ 100 / 10 Mbps ]	PASS	
LAN1 Intel InBusiness 8 Ports [ 100 / 10 Mbps ]	PASS	
LAN1 LEMEL LM-S5 5 Ports [ 100 / 10 Mbps ]	PASS	
LAN1 Accton DeskTop-3005 [ 100 / 10 Mbps ]	PASS	
LAN1 SVEC FD916H [ 10 Mbps ]	PASS	
LAN2 HP J4095A 24Ports [ 100 /10 Mbps ]	PASS	
LAN2 D-Link DES-1008 [ 100 / 10 Mbps ]	PASS	
LAN2 Intel InBusiness 8 Ports [ 100 / 10 Mbps ]	PASS	
LAN2 LEMEL LM-S5 5 Ports [ 100 / 10 Mbps ]	PASS	
LAN2 Accton DeskTop-3005 [ 100 / 10 Mbps ]	PASS	
LAN2 SVEC FD916H [ 10 Mbps ]	PASS	
<b>Touch Screen for serial Ports Test</b>	<b>Result</b>	
COM 1 Serial Port	PASS	
COM 2 Serial Port	PASS	
<b>CPU Compatible Test</b>	<b>Result</b>	
Pentium III 1.4G ( 133 FSB )	PASS	
Pentium III 1.26G ( 133 FSB )	PASS	
Pentium III 1G ( 100 FSB )	PASS	
Pentium III 933 ( 133 FSB )	PASS	
Pentium III 850 ( 100 FSB )	PASS	

Celeron 1.3G ( 100 FSB )	PASS
Celeron 766 ( 66 FSB )	PASS
C3 800 ( 133 )	PASS
<b>Memory Test – SDRAM PC-133/100</b>	<b>Result</b>
Infineon / HYB39S64800CT-75 / PC133 / 128MB	PASS
NEC / D45128841G5-A75-95F / PC-133 / 256MB	PASS
NEC / D4564841G5-A80-9JF / PC-100 / 128MB	PASS
Hyndai / HY57V658020 TC-10 / PC-100 / 128MB	PASS
KINGSTON / Winbond 202DB W982508BH-75/PC-133 / 512MB	PASS
SAMSUNG / K4S280832D-TC75 / PC-133 / 256MB	PASS
NEC / D45128841G5-A75-95F / PC-133 / 256MB	PASS
SEITEC / PM72V56841CT-6 / PC-133 / 512MB	PASS
<b>On Board Audio Function Test</b>	<b>Result</b>
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 Speaker Recorder – Dynamic / Condenser	PASS
<b>VGA Card Compatible Test</b>	<b>Result</b>
LEMEL S3 TRIO64V2-DX/GX / ISA Card	PASS
CIRRUS LOGIC 5429 / ISA Card	PASS
<b>Multi Media Card Compatible Test</b>	<b>Result</b>
Creative Sound BLASTER Live5.1 (PCI bus)	PASS
Lemel ESS ES1868F 3D/16 PnP (ISA bus)	PASS
<b>SCSI Card Compatible Test</b>	<b>Result</b>
APTEC / ASC-29160 (PCI bus)	PASS
Takram DC-395U / V1.02 (PCI bus)	PASS
AHA-1520B (ISA bus)	PASS
<b>Modem Card Compatible Test</b>	<b>Result</b>
Genuine GM56-AMI2019 (PCI bus)	PASS
LEMEL MD-56KVP (PCI bus)	PASS
<b>LAN Card Compatible Test</b>	<b>Result</b>
3 COM 3C905-TX (PCI bus)	PASS
D-Link FE-530TX Fast Adapter (PCI bus)	PASS
D-Link DWL-500+DWL-1000AP Wireless Adapter (PCI bus)	PASS
Intel SB82559 ( 20/100Mbps ) (PCI bus)	PASS
Intel PILA8560 (10/100MB) (ISA bus)	PASS
<b>Other Card Test</b>	<b>Result</b>
YUAN DVD MPEG-2 MPEG CARD ( PCI )	PASS

UPMOST 1394 CardBus + FireWire 3.5" HardDisk Enclosure	PASS
PixelView Play Tvpro	PASS
<b>RAID Adapter Card Test</b>	<b>Result</b>
ABIT HotRod 100 Pro (PCI bus)	PASS
<b>HDD Compatible Test</b>	<b>Result</b>
Maxtor 54610H6 / 160GB / ATA-133	PASS
Maxtor E-H011-02-3056 / 40GB / ATA133	PASS
Maxtor E-H011-02-3056 / 30GB / ATA133	PASS
Seagate ST380021A / ATA-100 / 80GB	PASS
IBM DNES-309170 / 9GB / SCSI HDD	PASS
<b>CDROM / DVDROM Test</b>	<b>Result</b>
ASUS 8520/A2 / 52X	PASS
TEAC CD-540E / 40X	PASS
BENQ 652A-674/ 52X	PASS
LEMEL LCD-5200S-563 / 52X	PASS
SONY CRX220A1 / 52W52 / CD-ROM	PASS
Acer 6406EU-122/ 4W6R/ USB-CD-ROM	PASS
PIONEER ATAPI DVD-A03S / 6X / DVD-ROM	PASS
<b>USB Compatible Test</b>	<b>Result</b>
CMOS Setting Test	PASS
CyberLink Power DVD XP4.0 Remote control	PASS
Acer 6406EU-122 USB-CD-ROM	PASS
HP SJ4200C Scanner	PASS
HP Photo Smart P1000 Print	PASS
IOMEGA ZIP 100MB	PASS
D-Link DSB-H4/ DU-H4 HUB	PASS
MITSUMI FLL3.5 D353GUE/FUE	PASS
<b>Floppy Disk Controller Test</b>	<b>Result</b>
Copy and Compare file between C : and A/B	PASS
Format A/B with system transfer and boot PC from floppy	PASS
Change CMOS Floppy is NONE value	PASS
SWAP FDD	PASS
<b>Peripheral Storage Device Compatible test</b>	<b>Result</b>
IOMEGA ZIP100M ( Parallel Type )	PASS
IOMEGA ZIP100M ( IDE Type )	PASS
LS-120 / LKM-F930-1 (IDE Type)	PASS
Compact Flash	PASS
<b>Industry Control Adapter Card Compatible Test-PC104/PC104Plus</b>	<b>Result</b>
AAEON PCM-5600 / Fax/Modem Module	PASS
AAEON PCM-3115B / PCMICA Module	PASS
AAEON PCM-3640 / RS-232 Module	PASS

<b>On Board I / O Function Test</b>	<b>Result</b>
COM Port Send-Receive Test	PASS
Checkit 7.0 Portable Edition Test	PASS
<b>Disk On Module [ DOM ] Compatibility Test</b>	<b>Result</b>
DOM-256-026P / Rev.A1k20 / IDE 40 Pin	PASS
<b>System Integer Application Test</b>	<b>Result</b>
PCI cards integer application	PASS
ISA cards integer application	PASS
PCI and ISA cards integer application	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 Test	PASS
Boot ROM Test	PASS <sup>1</sup>
COM Address/IRQ Test	PASS
LPT Address /IRQ Test	PASS
Hardware Monitor Test	PASS
Supervisor / User Password Test	PASS
BIOS Awdflash Program Test	PASS
<b>Performance Test – CPU Pentium III 1.4G , DRAM 512MB</b>	<b>Result</b>
LandMark Speed 2.0 – CPU	4626.82
LandMark Speed 2.0 – FPU	11610.83
LandMark Speed 2.0 – VIDEO	44683.00
WinBench 99 V1.1- CPU mark99	120
WinBench 99 V1.1- FPU winmark	7670
WinBench 99 V1.1- Business Graphic winmark99	454
WinBench 99 V1.1- High_end Graphic winmark99	1390
Final Reality V1.01 BenchMark Test – 2D image	9.55
Final Reality V1.01 BenchMark Test – 3D	5.48
Final Reality V1.01 BenchMark Test – Bus transfer	4.23
Final Reality V1.01 BenchMark Test – Overall	1390
3D WinBenech 2000 v1.0 with DirectX7 and 1024x768x16Bits-Processor Test	2.04
Content Creation Winstone 2000 V1.0 – C.C.Winstone 2000	55.6
WinStone 99 V1.1 – High_end winstone99	57.3
WinStone 99 V1.1 – Business winstone99	48.6
<b>Operation System Compatible Test</b>	<b>Result</b>
Linux Red Hat 8.0	PASS
Windows 98SE English / Chinese version	PASS
Windows NT workstation 4.0 English version with service pack 6	PASS

Windows 2000 professional English version	PASS
Windows XP Professional English version	PASS
DOS and DOS Utility Compatibility Testing	PASS
<b>Utility and Driver Test</b>	<b>Result</b>
Red hat Linux 8.0 hardware compatible list for VGA	PASS
Red hat Linux 8.0 hardware compatible list for LAN	PASS <sup>2</sup>
Red hat Linux 8.0 hardware compatible list for Audio	PASS
VGA for Windows 98SE (Onboard S3 Pro Savage 4.13.01.3025 )	PASS
VGA for Windows NT 4.0 (Onboard S3 Pro Savage 13.10.02)	PASS
VGA for Windows 2000P (Onboard S3 Pro Savage 6.13.10.1030 )	PASS
VGA for Windows XP (Onboard S3 Pro Savage 6.13.10.1031)	PASS
LAN for Windows 98SE (Realtek RTL8139D 5.505.1004.2002 )	PASS
LAN for Windows NT 4.0 (Realtek RTL8139D)	PASS
LAN for Windows 2000P (Realtek RTL8139D 5.505.1004.2002)	PASS
LAN for Windows XP(Realtek RTL8139D 5.505.1004.2002 )	PASS
LAN for Windows 98SE (Realtek RTL8100C 5.505.1004.2002 )	PASS
LAN for Windows NT 4.0 (Realtek RTL8100D)	PASS
LAN for Windows 2000P (Realtek RTL8100C 5.505.1004.2002 )	PASS
LAN for Windows XP(Realtek RTL8100C 5.505.1004.2002 )	PASS
LAN for Windows 98SE (Realtek RTL8110S 5.605.804.2003 )	PASS <sup>3</sup>
LAN for Windows 2000P (Realtek RTL8110S 5.602.619.2003 )	PASS
LAN for Windows 98SE (Intel 82551ER 1.0.0.1 )	PASS
LAN for Windows 2000P (Intel 82551ER 1.0.0.1 )	PASS
Sound for Windows 98SE (Realtak ALC201 AC97 Codec 5.10.0.4010 )	PASS
Sound for Windows NT 4.0 (Realtak ALC201 AC97 Codec 4.3.0.3030)	PASS
Sound for Windows 2000P (Realtak ALC201 AC97 Codec 5.10.0.4010)	PASS
Sound for Windows XP (Realtak ALC201 AC97 Codec 5.10.0.4010)	PASS
<b>LCD Monitor Function Test</b>	<b>Result</b>
ViewSonic E655 / CRT / 15"	PASS
Samsung / LTM150XS-T01 / TFT / 15"	PASS
CRT+LCD or CRT+LCD+TV – Dual or Three Display Function Test	PASS
<b>Miscellaneous Test</b>	<b>Result</b>
Windows 98 Power manager test	PASS
Windows 2000 Power manager test	PASS
H/W Reset	PASS
Ext. Speaker	PASS
On board buzzer	PASS
HDD LED	PASS
Power LED	PASS
Ext. KB connector	PASS
ATX power button	PASS
CPU FAN connector	PASS

COM1	PASS
COM2	PASS
COM2-RS-422	PASS
COM2-RS-485	PASS
LPT1	PASS
PS2 Keyboard / Mouse	PASS
SIR / 115K bps	PASS
LCD Display Function Test	PASS

<b>Summary OF Result</b>	
<b>PASS<sup>1</sup></b>	8110S PXE Boot Form LAN function with BIOS Rev.1.0 test is OK . Regarding RPL, supplier didn't provided BIOS code to support RPL, so RPL not available.
<b>PASS<sup>2</sup></b>	There's no suitable driver for RTL8110 ,under RedHat 8.0
<b>PASS<sup>3</sup></b>	Installs Realtek RTL8110S Driver for Win98se, it will appear no finding "netrtl.cat" file message,user must will choose "skip" then install it.