

HTPCi810 (Bki810 v3.3) TECHNICAL SPECIFICATIONS

Rev. 1.1 written by David Oakley

FEATURES

MAIN / VIDEO CHIPSET

Intel 82810 (810)

- Integrated 82810 (GMCH) Graphics Memory Controller Hub using Direct AGP for vivid 2D/3D graphics.
- Integrated Hardware Motion Compensation to improve software DVD video quality with digital video output.
- Intel Dynamic Video Memory Technology (DVMT) provides advanced memory management and performance for Direct AGP
- Integrated AC'97 compliant controller, EIDE controllers and dual USB ports. Improves sound and modem function by reusing existing resources.
- 82802 Firmware Hub (FWH) stores system BIOS and video, eliminating a redundant nonvolatile memory component. The 82802 also includes a hardware Random Number Generator (RNG) which improves security options and provide improved encryption.
- ATA 33/66 support
- 1MB of integrated video memory (NOT EXPANDABLE)

ONBOARD TV ENCODER

Chrontel CH7007A

- PC 99 compliant
- Universal digital interface accepts YcrCb (CCIR656) or RGB (15,16 or 24-bit multiplexed) video data in both interlaced and non-interlaced formats
- TrueScale rendering engine supports underscan operations for various graphics resolutions.
- Supports NTSC, NTSC-EIA (Japan) and PAL (B, D, G, H, I, M and N) TV formats.
- Provides composite and SCART outputs
- Supports MacroVision 7.x anti-copy protection
- Auto-detection of TV presence
- 9-bit video DAC outputs

ONBOARD MODEM

PCTel HSP56 MicroModem v3.03

- Dual mode V.90/56Kflex support
- PCI v2.2 compliant interface.
- ACPI supports 'On Now'
- Optional support for Caller ID
- On Chip PnP logic
- PC 97 & 99 compliant
- Supports Windows 95/98/NT/2000 and Linux
- Supports V.90, V.34, V.32, V32bis, V.22 and V.22bis protocols.

ONBOARD SOUND

C-Media CMI8738

- HRTF-based 3Dm positional audio supporting DirectSound 3D and A3D interface.
- Supports rear side speakers, C3DX positional audio in 4-channel speaker mode.
- Legacy SoundBlaster 16 compatible.
- Downloadable DLS-based WaveTable music synthesizer with DirectMusic support.
- Professional digital audio interface supporting 24-bit SPDIF input and output in both 44.1KHz and 48KHz formats.
- Built-in 32ohm earphone buffer.
- Drivers support AC3 5.1 channel interface.
- MPU-401 port.
- 16-bit full duplex CODEC for playback and recording.
- 4-channel 16-bit DAC
- 32-bit PCI bus master.

ONBOARD LAN ADAPTER

Davicom 9102 Fast PCI Ethernet adapter

- Integrated Fast Ethernet MAC, Physical Layer and transceiver.
- +3.3v power supply with +5v tolerant I/O
- PCI 2.2 compliant interface
- Independent receive FIFO and transmit FIFO
- IEEE 802.3u 100Base-TX and 802.3u 10Base-T compliant
- Full and half duplex mode support
- Supports Wake on LAN features
- High performance 100Mbps clock generator and data recovery circuit.
- Provides loopback mode for easy system diagnostics.

ONBOARD I/O PORTS

External Ports

- (1) Parallel port which supports EPP and ECP modes
- (2) USB ports
- (2) PS/2 ports
- (1) 15-pin VGA port
- All ports are PC 99 compliant for easy identification

Internal Ports

- (1) Primary EIDE controller with support for two UltraDMA 33 / 66 devices
- (1) Floppy drive controller with support for up to two drives
- (1) SPDIF digital audio connector

MEMORY CAPACITY

- (2) 168-pin DIMM slots for 3.3v SDRAM modules
- Supports a maximum of 512MB RAM

PROCESSOR SUPPORT

- The Bki810 Book PC (iCue Bki810) will support only Intel Celeron CPUs 266MHz – 533Mhz

EXPANSION SLOTS

NOTE: The Book PCs (iCue BK Series) do not have any expansion slots. There are no ISA, PCI or AGP slots.

DRIVES

- Samsung 1.44MB 3 ½" drive
- Panasonic 6x DVD-ROM drive

CASE SPECIFICATIONS

- External dimensions 30cm (L) x 27.25cm (W) x 8.25cm (H)
- External 5 ¼" drive bay occupied by the CD/DVD-ROM drive
- External customized 3 ½" floppy drive bay occupied by the floppy drive (ZIP drives will not fit)
- Internal 3 ½" drive bay (for hard drive)
- PS/2 ports (for keyboard and mouse)
- USB ports
- RJ45 Ethernet port
- Modem port for both Phone and Line
- EPP/ECP Parallel port
- (1) 15-pin VGA port
- (1) 15-pin MIDI port
- Sound ports for MIC, Line-In and Speakers
- Composite TV output
- S-Video output

POWER SUPPLY

- 100Watt 2Amp output at 50/60Hz
- Dimensions 10.25cm (W) x 6cm (L) x 7.25cm (H)
- Auto-switching

PACKAGE CONTENTS

- Case with 100W power supply
- Mainboard
- Panasonic 6x DVD-ROM drive with 40-pin ribbon cable
- Samsung 3 ½" floppy drive with cable
- CD-ROM audio cable
- WEBBOARD Win98 wireless keyboard
- Wireless Remote Control (Optional)
- User's manual
- System Support CD
- Optional BIOS update on floppy diskette
- Stereo speakers (Optional)

JUMPER SETTINGS

BATTERY CONTROLLER

JUMPER	FUNCTION	SETTING
JP2	Battery On	Short pins 1-2
	Battery Off	Open pins 1-2

CLEAR CMOS MEMORY

JUMPER	FUNCTION	SETTING
JP3	Clear CMOS	Short pins 2-3
	Normal Operation	Short pins 1-2

TV SETTINGS

JUMPER	FUNCTION	SETTING
JP7	SCART TV Mode	Short pins 1-2
	Normal TV mode	Short pins 2-3

CPU SETTINGS

JUMPER	FUNCTION	SETTING
JP8	Celeron CPUs	Short pins 1-2
	FC-PGA CPUs	Open pins 1-2

CPU FSB SETTINGS

NOTE: This jumper is useless unless you have an i810E chipset.

JUMPER	FUNCTION	SETTING
JP11	133 MHz BUS	Short pins 1-2
	66/100 MHz BUS	Short pins 2-3

MOTHERBOARD HEADER PIN-OUTS

MODEM DAA MODULE (JP1)

PIN	FUNCTION	PIN	FUNCTION
1	GROUND	9	OFFHOOK
2	AFEM CLK	10	GPIOX
3	GROUND	11	RIN
4	HSPFS	12	HSPSDO
5	GROUND	13	5VSB
6	MSCLK	14	HSPSDI
7	PVCC3	15	MUTE
8	PRING	16	AFERET

FRONT PANEL (PANEL 1)

PIN	FUNCTION	PIN	FUNCTION
1	GROUND	6	POWER LED
2	POWER SUPP.	7	HDD LED
3	GROUND	8	VCC
4	RESET	9	SUS LED -
5	GROUND	10	SUS LED +

SPDIF OUTPUT (J4)

PIN	FUNCTION	PIN	FUNCTION
1	12V	4	GROUND
2	N/A	5	SPDIF OUT
3	SPDIF IN	6	SPEAKER OUT

SPDIF INPUT (J11)

PIN	FUNCTION	PIN	FUNCTION
1	SPDIF IN	2	GROUND

CD-ROM AUDIO (J3)

PIN	FUNCTION	PIN	FUNCTION
1	LEFT CH.	3	GROUND
2	RIGHT CH.	4	GROUND

SPECIAL PANEL (V-BOX) J1

PIN	FUNCTION	PIN	FUNCTION
1	USB PO -	11	KEYBOARD CLK
2	USB PO +	12	EXTK CLK
3	UP -	13	K DATA
4	UP +	14	EXTK DATA
5	VCC	15	5VSB
6	GROUND	16	GROUND
7	IRTX	17	M CLK
8	IRRX	18	EXTM CLK
9	N/A	19	M DATA
10	GROUND	20	EXTM DATA

SPECIAL PANEL (V-BOX) J2

PIN	FUNCTION	PIN	FUNCTION
1	N/A	5	SPEAKER R
2	N/A	6	SPEAKER R OUT
3	MICROPHONE IN	7	SPEAKER L
4	MICROPHONE OUT	8	SPEAKER L OUT

POWER CONNECTOR

PIN	FUNCTION	PIN	FUNCTION
1	5VSB	4	PS-ON#
2	GROUND	5	+12V
3	GROUND	6	+12V

NOTE: Power connector color-codes can be found on the sticker placed on the power supply.

NOTE: Jumpers and headers on the motherboard, which may appear to have no function or are not listed here, are for factory testing purposes only.

** Specifications and features are subject to change without notice. Amtron is not responsible for erroneous information in this text. For further information on this system please contact Amtron International's Technical Support Department. This information was provided and prepared by David Oakley – Senior Support Technician, Amtron International Inc.

FREQUENTLY ASKED QUESTIONS

Question: Can I disable any of the onboard hardware (i.e., LAN, Modem, Sound, Video)?

Answer: No. Currently there is no way to disable the onboard devices.

Question: Can I increase the amount of video memory?

Answer: No. With the Intel i810 chipset the maximum amount of video memory is 1MB. With the Intel memory architecture of the i810 chipset, 1MB of video memory is more than sufficient.

Question: I tested the system with the case apart but when I close the case the system will no longer power on, why?

Answer: A lot of the time this is caused by the bottom of the floppy drive or CD-ROM drive cutting in to the power connector on the motherboard.

Question: Will this system support a Pentium III FC-PGA (Coppermine) processor?

Answer: No. The socket-370 processor socket on this motherboard was designed specifically for use with the Intel Celeron processor and is not capable of supporting any other processors.

Question: Will this system run Linux and if so where can I find the Linux drivers?

Answer: This system is fully Linux compatible and will run most popular distributions of Linux. If you intend to use Linux on this system you should use the latest version of XFree (v3.3.6 or later). Versions of Linux that include XFree 3.3.6 or later include drivers for the onboard devices. The only Linux driver that is not included with XFree is the modem driver, which is available for downloading at the following website. <http://www.amptron.com/>

Question: Can I add an internal ZIP drive in place of the floppy drive?

Answer: No. The front panel of the case has a custom opening specifically for a floppy drive. A ZIP drive would not line-up correctly with the case's front panel.