Angel PCI PVR
Internal Dual Tuner
MPEG-1&2 Video Capture Device

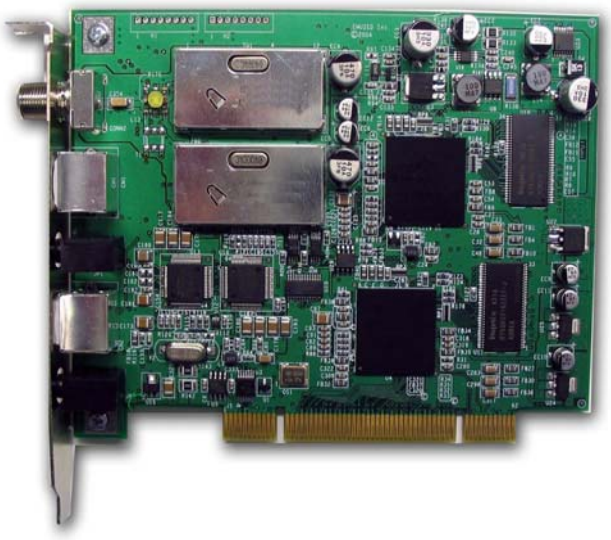
Product Overview

Angel PCI PVR is a dual TV tuner PCI card solution with dual hardware encoders and advanced picture quality enhancements for Windows XP Media Center Edition. The Angel PCI PVR card features an MPEG2 encoder device which offers a video decoder with three-dimensional (3D) luminance/chrominance (Y/C) separation, 3D noise reduction, and an MPEG-1/MPEG-2 encoder in a single chip.

The card enables multiple tuner applications which will be supported in Microsoft's Symphony MCE release, including watching one live program while recording another, recording two programs simultaneously, and watching TV on a digital media adaptor device

General Feature Set

- Option for single or dual analog tuner (NTSC, PAL or SECAM) configuration
- Hardware-based MPEG-1 and MPEG-2 encoding
- Supports RAW audio and video capture
- Stereo audio decoding, with support for worldwide standards (48kHz)
- Video quality enhancements, including 3D Y/C separation and 3D noise reduction
- Full 10-bit D-1 capture in NTSC / PAL / SECAM
- DVD formatted recording
- PCI Standard Profile form factor
- Supports raw and sliced VBI capture



NOTE: These specifications are subject to change without notice.

Analog Video

The device has 2 sets of video inputs. Under SW control, the user can select either:

- Analog Composite Video Input 1 or 2 (requires an adaptor)
- Analog S-Video Input 1 or 2
- Tuner 1 or 2

Audio

The device has 2 sets of analog stereo audio inputs. All audio is captured at 48 kHz. The audio encoder supports MPEG-1 Layer-2 encoding.

MPEG Encoder

The MPEG encoder supports the following features:

- MPEG-1 or MPEG-2 format
- VBR from 2 Mbps to 15 Mbps (6 Mbps over USB 1.1) for MPEG-2
- VBR from 64 Kbps to 5 Mbps for MPEG-1
- NTSC or PAL video formats
- Programmable 3-D filter
- Auto 3:2 pull down detection
- VBI extraction
- VCD, SVCD & DVD formats

Macrovision detection up to and including V7.01 is supported. Type 1, 2, and 3 can be detected.

I/O

The following connectors are supported on the front panel of the unit:

- RF Video Input via a single “F” connector” or “IEC-female” connector.
- Dual S-Video mini-DIN connectors (baseband video). An adaptor can be used to bring a Composite Video signal into these ports.
- Dual 3.5mm stereo mini-jack connectors (baseband audio)
- Two optional 8-pin headers support CVBS, S-Video and audio on each channel

Thermal

Operating Temperature: 0 to 55 degrees C ambient [5-85% relative humidity]
Storage Temperature: -20 to 70 degrees C [5-85 % humidity]

Power

The unit is powered from the PCI bus and draws

- 3.3V at 700mA
- 5.0V at 1200mA
- 12V at 60mA

Weight

TBD

Dimension

5.5 inch x 4.1 inch

Software

Driver

The Encoder chip microcode is downloaded over the PCI bus so that the unit can be Upgraded in the field. The driver works under Windows XP.

The drivers are WDM compliant and can be integrated with a variety of 3rd party applications (see below).

3rd Party Applications

The Angel PCI product is designed for use under Microsoft's Media Center Edition operating system. In addition, it works with a number of third party SW applications as well such as Sonic MyDVD, InterVideo WinDVD Creator, and other applications depending on OEM requirements. It is important to note that the availability & performance of various Aruba features will be determined based on the capabilities of the 3rd party application.

NOTE: MovieMaker is used to support the Raw Capture feature (must use Channel 1).

PC

The requirements for the PC will be set by the SW application(s) more than by the hardware. Of course, a USB1.1 or 2.0 port is required. The driver requires:

- Pentium III 800 MHz or equivalent AMD
- 128 MB RAM
- Graphics board with DirectX 9 support
- Sound board with DirectX 9 support
- Windows XP

Testing:

Angel has passed the following hardware and software certifications and testing:

- FCC/CE/VCCI Class B—passed 11/04
- Hardware reliability testing—passed 11/04
- WHQL—passed 12/04