Maui-III PCI PVR

Hardware MPEG-2 Encoding Internal Video Capture Device with TV Tuner

PRODUCT OVERVIEW

Maui-III PCI PVR is an analog to MPEG-2 hardware encoding PCI card with an integrated on-board TV tuner and optional FM tuner. This product consists of a PCI card (low profile and standard profile versions), and a software application. The application allows the user to capture full motion D-1 quality video clips in MPEG-2 format on the PC.

GENERAL FEATURE SET

- Video capture from TV tuner or an external video source with hardware MPEG-2 encoding
- SVCD, DVD compatible recording
- Full D-1 capture in NTSC or PAL
- On-board TV tuner
- BTSC, EIJA, and SAP stereo decoding for NTSC version
- NICAM and Dual Carrier decoding for PAL version
- Optional FM Tuner

Emuzed Maui–III PCI PVR (Low Profile Version)

FEATURES

Video

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

- S-Video input (standard profile version offers both S-video and composite inputs) in back panel
- RF TV Input in back panel
- S-Video Input (via 10-pin connector)
- Composite Video Input (via 10-pin connector)

MPEG encoder supports the following features:

- MPEG-2 format
- CBR or VBR from 0.25 to 15 Mbps
- NTSC Video formats: 720 x 480, 704 x 480, 640 x 480, 544 x 480, 480 x 480, 352 x 480, 320 x 480
- PAL Video Formats: 720 x 576, 704 x 576, 640 x 576, 544 x 576, 480 x 576, 352 x 576, 320 x 576
- MPEG video elementary and audio PCM stream output
- SVCD & DVD-compatible streams

Audio

The device has 1 set of stereo audio inputs, implemented as a mini-jack for the low profile version, and dual RCA connectors for the standard profile version.   The device also supports TV Tuner audio with an on board audio processor – BTSC, EIJA and SAP stereo standard for the NTSC version and NICAM and Dual Carrier for the PAL version. The audio A/D converter allows the user to select one of 3 different sampling rates; 32, 44.1 and 48 kHz. The software audio encoder supports the following options:

- MPEG-1
- Selectable bit rates: 32, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320, 384

I/O

The following I/O connectors are supported on the unit:

Back Panel
- RF Video Input
- Optional RF FM input
- 1 S-video input
- 1 Composite Video Input (standard profile version only)
- 1 mini-jack stereo audio input (low profile card) or 2 stereo audio input (standard profile card)

10-Pin Connector
- 1 Composite Video Input
- 1 S-Video Input
- 2 Stereo Audio Input

Bus Interface

Maui-III PCI PVR supports PCI version 2.1.

Thermal

Operating Temperature: 5 to 50 O C [20-80% relative humidity]
Storage Temperature: -20 to 70 O C [10-90 % relative humidity]

Power

The board uses +5V and +12V from the PCI bus. The board may be used in 5V or 3V PCI signaling environments. The special I/O power pins on the PCI bus are connected only to the I/O power pins on the DVXplore processor.

> 12V: 325 mA max; 5V: 1.5 A max ; 3.3V: no connection

SOFTWARE

MovieMill TV Software

Maui-III PCI PVR is provided with WDM and Microsoft Media Center Edition compliant drivers, as well as the Emuzed MovieMill TV capture application. The key features of this application are outlined below.

Capture

- Preview in a window or full screen. Preview is implemented by means of a real time software decoder included in the bundle. Audio is rendered through sound card and proper audio/video synchronization is ensured
- Capture to a file. Manual stop or timed capture options
- Video, audio and TV input selection
- VCD, SVCD and DVD templates
- JPEG still image capture
- Color controls (Brightness, Saturation, Tint, Sharpness, Contrast)
- TV tuner control including:
    - Antenna/Cable selection
    - Channel selection
    - Favorite channels setup
    - Scanning for available channels
    - Fine tune

Playback

- MPEG1 and MPEG2 file playback
- Video in a window and full screen

- File browse for file selection
- Position slider for instant position change
- Buttons: play, pause, 1 frame step back, 1 frame step forward, begin, end
- Volume control

The additional capture and playback control features of this application are described in a separate document.

Driver

The drivers are WDM and Media Center Edition compliant, and can be integrated with a variety of 3rd party applications with minimal engineering effort. The drivers work under Windows 98SE, Windows ME, Windows 2000 and Windows XP.

Customization

Emuzed will customize the driver, installation and MovieMill application to reflect an OEM's company name, logo, and product name. The MovieMill user interface is localization-ready and can support multiple languages using the Emuzed OEM Customization Kit.

3rd Party Software

A variety of 3rd party applications support this product including DVD/PVR applications with time shift recording, electronic programming guide, and scheduler. Please contact Emuzed for more information.

PC REQUIREMENTS

The requirements for the PC will be set by the software application(s) more than by the hardware. Minimum recommended PC system requirements are as follows:

- Pentium III 500 MHz or equivalent AMD processor
- 128 MB RAM
- Graphics board with DirectX 8 support
- Sound board with DirectX 8 support
- CD-ROM drive
- IDE Hard drive with master mode support
- Free low profile or standard profile PCI slot
- Windows 98SE, ME, 2000 or XP

For Windows XP Media Center Edition requirements please refer to Microsoft documentation.

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