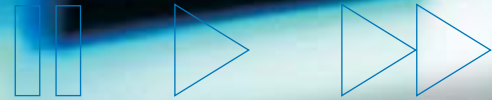




MPEG-2 HD  
Encoding Board

# MovieMaker HD



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The MovieMaker HD is an MPEG-2 hardware-based, broadcast-quality PCI encoder. It supports both HD and SD resolutions, comes with a comprehensive encoding application or a full-featured SDK, and offers instant feedback with decode while encoding.

Using MPEG Composer, Optibase's encoding application, you can create professional HD content for video on demand (VOD), broadcast and digital signage. The powerful SDK gives you all you need to develop unique applications such as ingest solutions, high-resolution military simulations/surveillance or the ability to review medical procedures.

## Packing Powerful HD Processing

The MovieMaker HD hardware-based encoder supports both high definition and standard definition video inputs, with MPEG-2 HD compression support at up to 150 Mbps. Using AES3 inputs, it provides up to 2 stereo pairs of Dolby Digital™ stereo, MPEG-1 L2, Dolby 5.1 pass-through and PCM audio. The board is designed to take input from a number of sources and drop the created files to a host as compressed data.

## Easy to use Encoding Application

For ease of use and full control over encoding, the MovieMaker HD comes bundled with the MPEG Composer, Optibase's encoding management application, that includes integrated device control, parameter setting, and encode-status monitoring. You can start creating content immediately for any type of application, including: ingest, DVD creation, VOD upload or show dailies.

## Developer Tools and Services

The MovieMaker HD is ideal for vendors and integrators who are interested in building HD video servers and applications for broadcasting, video-on-demand (VOD), ad insertion, program initiation, high-resolution military simulation or surveillance products and projects. To facilitate the development and customization of HD solutions, the MovieMaker HD comes with an extensive, well-known software developer toolkit (SDK). Optibase's Professional Services team is available for the development and customization of any project.

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## Available Configurations

The MovieMaker HD family is available in 3 configurations

### MovieMaker HD Prime

A professional MPEG-2 HD encoder supporting SD/HD-SDI video input, MPEG-2 SD/HD encoding, as well as PCM and MPEG1 L2 audio.

### MovieMaker HD Pro

Supports all of the features of the MovieMaker HD Prime with additional support for Dolby Digital Stereo encoding and Dolby Digital 5.1 pass-through.

### MovieMaker HD Max

Supports all of the features of the MovieMaker HD Pro with additional support for 4:2:2 encoding at 150 Mbps.

## Benefits

- Real-time, broadcast-quality HD encoding on your PC
- Offers pristine video with high quality 4:2:2 encoding
- MPEG Composer, a fully integrated control application, uses the same familiar interface as our MPEG MovieMaker 200S
- Full, feature-rich SDK shares the same APIs as our existing MPEG MovieMaker 200S
- Decode-while-Encode offers instant feedback (available with Optibase's VideoPlex HD decoder)
- Support for multiple audio encoding lets you offer several languages
- Encode your project efficiently using batch encoding
- Professional and accurate tape deck control allows you to import your material and encode in just one step
- Built to handle all of your MPEG-2 encoding needs by supporting HD and SD resolutions

## Features

- PCI-X/PCI board – 1 slot
- Video Input: HD/SD-SDI
- Video Preview: HD/SD-SDI
- Video Compression:
  - MPEG-2 HD 4:2:2MP@HL
  - MPEG-2 HD 4:2:0MP@HL, MP@H14L
  - MPEG-2 SD 4:2:0 MP@ML, SP@ML
- Audio Input: 4 stereo pairs AES3
- Audio Preview: 1 stereo pair BNC (ability to select channel)
- Audio format:
  - 2 encoded streams of MPEG1-L2, Dolby Digital stereo
  - 4 stereo channels of PCM, Dolby Digital 5.1 Pass-through
- Output formats: Transport (including Cable Labs VOD, ATSC and DVB), Program, Elementary
- Support for 708B closed captions

# MovieMaker HD

## Technical Specifications

### Standards Compliance

- ISO/IEC 13818 (MPEG-2)

### Input/Output Signal

#### Video Inputs

- SMPTE 292 HD-SDI
- SMPTE 259 SD-SDI and ITU-R BT.656-4
- 75W BNC

#### Audio Inputs

- 4 x AES3 (AES-EBU) connectors
  - Unbalanced coaxial cable - AES-3id
  - Balanced XLR connector - AES3
- 8 stereo pairs embedded (HD/SD-SDI)
  - SMPTE 272M-A&C SD
  - SMPTE 299M HD synchronized at 48kHz
- Sampling Frequency: 32, 44.1, 48 kHz at 8 or 16 bits per sample
- Audio Gain Control: -90dB to +30dB with 8dB level steps

#### Video Preview Output

- SMPTE 292 HD-SDI
- SMPTE 259 SD-SDI and ITU-R BT.656-4
- 75W BNC

#### Audio Preview Output

- 1xAES3 (AES-EBU)-Unbalanced coaxial cable-AES-3id

### Output Streams

#### Video Bit Rates

- HD
  - 150 Mbit/s MPEG-2 HD MP@HL 4:2:2\*
  - 80 Mbit/s MPEG-2 HD MP@HL 4:2:0
  - 60 Mbit/s MPEG-2 HD MP@H14L
- SD
  - 50 Mbit/s MPEG-2 SD 422P@ML 4:2:2\*
  - 15 Mbit/s MPEG-2 SD MP@ML, SP@ML 4:2:0
- HD
  - 1080i x 1920/1440/1280 @ 60i, 59.94i, 50i, 24p, 23.98p, 24pSF
  - 720p x 1280 @ 60p, 59.94p, 50p
- SD
  - 480 x 720/544/528/480/352 @ 59.94i
  - 576 x 720/704/544/480/352 @ 50i

#### Audio Formats

- 2 stereo pairs (MPEG-1 Layer 2, Dolby® Digital\*)
- 4 stereo pairs (Linear PCM, Dolby® 5.1 Pass Through\*)

#### Audio Bit Rates

- 32-384 Kbit/s MPEG-1
- 96-640 Kbit/s Dolby® Digital

#### File Format

- Audio and/or Video Elementary
- Transport
- Program

#### Audio Mode

- MPEG-1 Layer 2 (Mono, Dual Mono, Stereo, Intensity Stereo)
- Dolby Digital Stereo (Stereo, Mono-central)
- Dolby Digital Stereo® 5.1 Pass Through\*
- Linear PCM 16/8 bit

### Hardware

#### Type and Compliance

- PCI-X/PCI Single Universal Board
  - PCI-X 2.0a mode 1 compliant, PCI 3.0 compliant
  - 64 bit or 32 bit
  - 313 MHz (PCI-X) down to 33MHz (PCI)
  - 5V & 3.3V bus compliant

#### Power Consumption

- 15.0 W @ 3.3 VDC, 0.6 W @ 5 VDC

#### Physical Size

- Single slot full size PCI board

\* Specific models

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