

# ADVC HD Family

## HIGH-QUALITY HD VIDEO CONVERSION

Our ADVC HD family supports virtually any high-definition (HD), video-conversion need. As standalone units or connected to a computer, all ADVC HD products feature broad compatibility with video equipment, sturdy construction, and a standalone-operation capability.



### ADVC-HDM1 – Real-Time HD-SDI/ HDV Conversion

Provides high-quality, bi-directional conversion between HD-SDI and HDV signals, complete with embedded audio. It's perfect for recording from HD-SDI sources to a nonlinear editing system for HDV editing—or for use as a standalone converter without a computer.

It can also encode HD MPEG-2 transport streams up to a full 1920x1080 resolution using one of eight different bit-rate settings that best suits your workflow.

The ADVC®-HDM1 unit also lets you input external time-code information when encoding in HDV; control HD-SDI decks via HDV and vice versa with AV/C-RS-422 device control conversion; and use simple, two-button control for its encoding/decoding and time-code mode via the front panel. Convenient partial-width, 19-inch rack, 1 RU form factor. Rack mount kit is available separately.

### ADVC-HD50 – Real-Time HDMI to FireWire (IEEE 1394) Conversion

Converts any uncompressed HDMI source—for example from AVCHD camcorders—to the HDV format for easier editing (1280 x 720 to 1280 x 720 HDV and 1920 x 1080 to 1440 x 1080 HDV), also reducing the need for a high-performance system or costly HDD storage. Simple to operate—perfect for laptops *and* desktops.

### ADVC-HDSC1 – Real-Time HD-SDI/SD-SDI to Component (YUV) Conversion

Converts HD-SDI signals to HD component output or SD-SDI signals to SD component output. It provides instant output of HD content to affordable HD component displays, such as TVs and RGB monitors—and standard-definition (SD) content to component, S-Video, and composite displays. It has a sync

generator for HD (tri-level sync) and SD (black burst), making it ideal for video editing studios—as well as audio-level-adjustment options.

The ADVC-HDSC1 unit also offers several unique features, including embedded audio support, SD-SDI to S-Video and composite conversion, HD-SDI conversion to RGB for PC monitors with BNC inputs, and front-panel displays for video-format and audio-level outputs. As well, it automatically detects your current video output format, and supports SDI signal pass-through. Convenient partial-width, 19-inch rack, 1 RU form factor. Rack mount kit is available separately.

## KEY FEATURES

- Compatible with Windows (including Windows 7) and Mac operating system-based DV editing systems
- No need to install drivers or any software applications
- 50 Hz and 60 Hz compatible
- Ideal for studio production environments
- Robust and reliable – over 250,000 ADVC converters sold worldwide
- Works with many FireWire 800 (IEEE 1394b)-equipped computers by means of an appropriate adapter cable (customer supplied)

**PACKAGE CONTENTS**

**ADVC-HDM1**

- ADVCHDM1 converter unit
- AC adapter
- User manual



**ADVC-HD50**

- ADVC-HD50 unit
- User manual
- 1 x FireWire cable (IEEE 1394a) (6-pin to 6-pin)



**ADVC-HDSC1**

- ADVCHDSC1 unit
- AC adapter
- User manual



**SPECIFICATIONS**

**ADVC-HDM1 Specifications**

**Digital Video**

- 4-pin FireWire (IEEE 1394a)
- 6-pin FireWire (IEEE 1394a)

**Supported MPEG-2 transport stream encoding formats:**

- HDV (auto select)
  - HD1: 720/30p, 720/25p (video bit rate: 18.3 Mb/s; audio stream: stereo MPEG Audio Layer 2, 384 kb/s)
  - HD2: 1080/59.94i, 1080/50i (video bit rate: 25 Mb/s; audio stream: stereo MPEG Audio Layer 2, 384 kb/s)
- Additional formats (dip switch select)
  - Video bit rate: 11, 14, 16, 18, 20, 25, 30, 40 Mb/s
  - Audio stream: MPEG Audio Layer 2, 384 kb/s

**Supported MPEG-2 transport stream decoding formats:**

- HDV (auto select)
  - HD1: 720/30p, 720/25p
  - HD2: 1080/59.94i, 1080/50i
- Additional formats (dip-switch select)
  - Profile/Level: MP @ HL, MP @ H14
  - Resolution/frame rate: 1080/59.94i, 1080/50i, 720/59.94p, 720/50p
- HD-SDI in (BNC)
- HD-SDI active-through (BNC)
- 2x HD-SDI out (BNC)

**Digital Audio Input**

- HDV 2-channel
- HD-SDI 2-channel embedded audio (SMPTE 299M Ch1, Ch2 only)

**Digital Audio Output**

- HDV 2-channel
- HD-SDI 2-channel embedded (SMPTE 299M stereo, 16-bit, 48 kHz, locked)

**Time Code**

- LTC in (BNC)
- LTC out (BNC)
- DVITC in (decoded from HD-SDI input)
- DVITC out (encoded in HD-SDI output)

**Reference**

- Input (BNC)
- Loop-through (BNC)

**Device Control**

- AV/C over 1394
- RS-422A (control)
- RS-422A (device)
- RS-232C (external control)

**Display**

- Front-panel status
- Mode select

**Power**

Includes AC adapter (12 VDC, 3A)

**Environmental Characteristics**

- Operating temperature: 10 to 35°C
- Storage temperature: -20 to 60°C
- Maximum humidity: 80% (no condensation)

**Dimensions**

- Width: 215 mm (8.46 in.)
- Height: 44 mm (1.73 in.)
- Depth: 241 mm (9.49 in.)

**ADVC-HD50 Specifications**

**Digital Video/Audio Input**

1 x HDMI connector (HDCP not supported)

**Digital Video/Audio Output**

1 x 6-pin FireWire (IEEE 1394a)

**Supported Video Input Resolutions**

- 1920x1080 (59.94i, 50i), 1280x720 (59.94p, 50p)
- 720x480 (59.94p), 720x576 (50p), 640x480 (60p)

**Supported Audio Input Formats**

LPCM 2ch at 16- to 24-bit, 32/44.1/48 kHz

**Video Output Formats**

- HDV Mode-1 (720p): 1280x720/59.94p, 1280x720/50p
- HDV Mode-2 (1080i): 1440x1080/59.94i, 1440x1080/50i
- IEC61883-4 MPEG Transport Stream

**Audio Output Format**

Stereo MPEG-1 Audio Layer 2 384 kb/s (multiplexed)

**Power Source**

FireWire (IEEE 1394a) bus powered or DC 5V from optional AC adapter

**Power Usage**

8W

**Environmental Characteristics**

- Operating temperature: 5 to 40°C
- Storage temperature: -20 to 60°C
- Maximum humidity: 80% (no condensation)

**Dimensions**

- Width: 152 mm (5.98 in.)
- Height: 23 mm (0.91 in.)
- Depth: 153 mm (6.02 in.)

**ADVC-HDSC1 Specifications**

**Digital Video**

- SD-SDI/HD-SDI in (BNC)
- SD-SDI/HD-SDI active-through (BNC)

**Supported Video Formats**

- HD – 1080/60i, 1080/59.94i, 1080/50i, 1080/24PsF, 1080/23.38PsF, 1035/60i, 1035/59.94i, 720/60p, 720/59.94p, 720/50p
- SD – 525/59.94i (NTSC), 625/50i (PAL)

**Digital Audio Input**

SDI 8-channel embedded audio

**Analog Video Output**

- S-Video
- Composite (BNC)
- Composite (RCA)
- Component (5 x BNC; RGB; RGBH sync-on-green; RGBHV; Y,Pb,Pr)

**Analog Audio Output**

- Stereo unbalanced (2 x RCA)
- Ch1/2, Ch3/4, Ch5/6, Ch7/8, mix selectable

**Reference**

- SD black burst out (BNC)
- HD tri-level out (BNC)

**Display**

- LCD configuration menu
- Stereo audio peak meters
- -48 dB to 0 dB (FS) display
- -17 dB to 0 dB (FS) peak hold

**Power**

Includes AC adapter (12 VDC, 3A)

**Environmental Characteristics**

- Operating temperature: 5 to 40°C
- Storage temperature: -20 to 60°C
- Maximum humidity: 80% (no condensation)

**Dimensions**

- Width: 215 mm (8.46 in.)
- Height: 44 mm (1.73 in.)
- Depth: 241 mm (9.49 in.)

**Minimum System Requirements (all units)**

**Windows PC**

- Windows 2000 (Service Pack 3 or higher)
- Windows XP Home, Windows XP Professional (Service Pack 1 or higher)
- Windows Vista Home Basic, Windows Vista Home Premium, Windows Vista Business, Windows Vista Ultimate (Service Pack 1 or higher)
- Windows 7 Home Premium, Windows 7 Professional, Windows 7 Ultimate
- DirectX 8.0 or higher

**Mac**

Mac OS X (10.2.7/10.2.8/10.3/10.4.x /10.5/10.6)

Note: A video-capture card or OHCI FireWire (IEEE 1394) connection is required to capture DV.

**DEALERS/RESELLERS**

To find your local reseller or dealer for Grass Valley professional audio video products, please visit [professional.grassvalley.com/sales/](http://professional.grassvalley.com/sales/).

**SERVICE & SUPPORT**

Twelve-month limited warranty with service provided through local resellers. Additional support available on a contractual basis.

