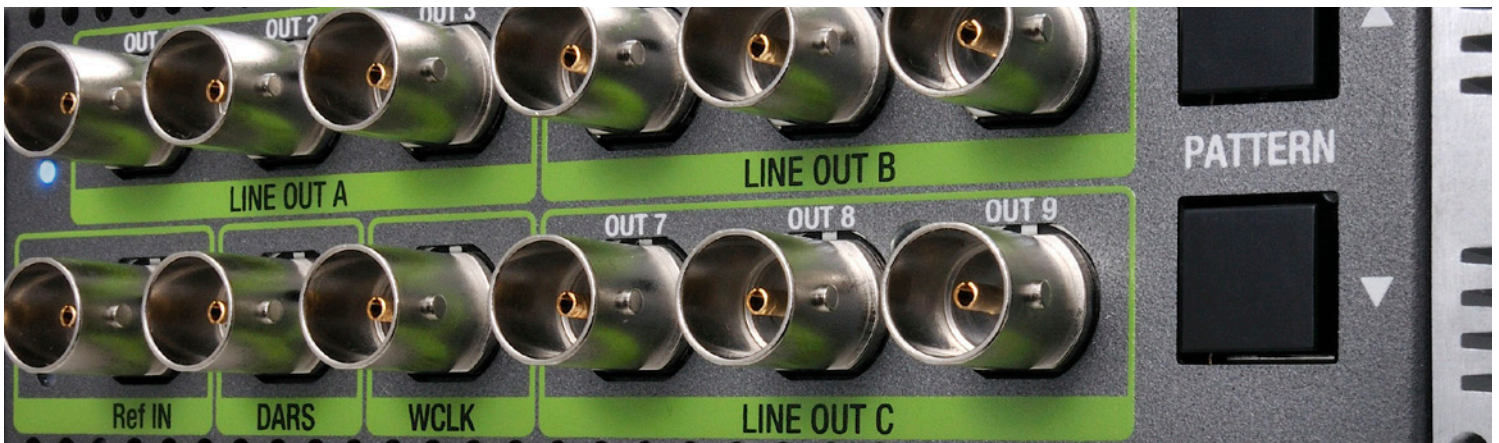


ADVC G1

Any In to SDI Multifunctional Converter/Upconverter with Frame Synchronizer



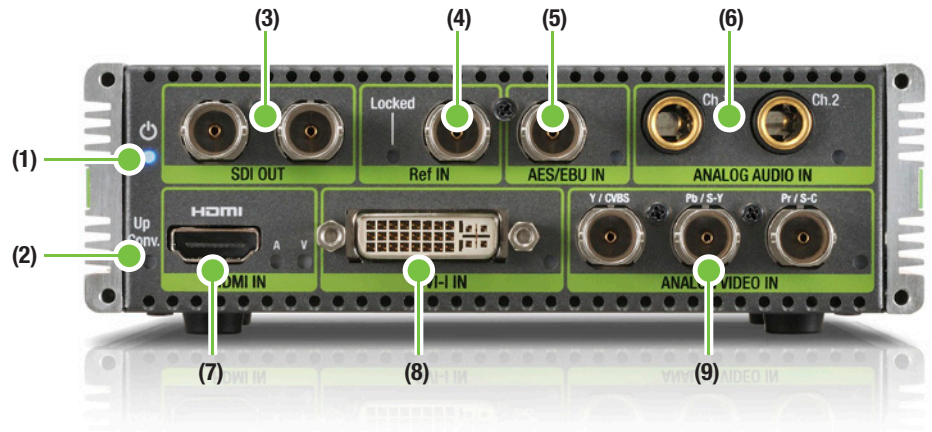
The ADVC G1 converts and/or upscales, at the user's choice, HDMI, DVI, component, composite, S-Video, AES/EBU and analog audio to 3G/HD/SD-SDI.





The ADVC G1 from Grass Valley, a Belden Brand, is a compact and competitively priced converter, designed to convert and/or upconvert professional/broadcast signals to HD/SD-SDI supporting the latest 3G technology.

The ADVC G1 will convert and/or upconvert sources from HDMI, DVI, component, composite, S-Video, AES/EBU and analog audio to HD/SD-SDI (3G/1.5G support). The ADVC G1 can also be used as an audio embedder. It features a Reference In port which can serve as a frame synchronizer for analog inputs, eliminating the need to purchase separate expensive equipment.



- (1) **Power LED** – Lights when the ADVC G1 is operating.
- (2) **Up Conv. LED** – Lights in upconversion mode.
- (3) **SDI OUT** – 3G/HD/SD-SDI output ports.
- (4) **Ref IN** – Reference signal input port. The LED is lit when REF is selected for reference signal source, and if the reference signal input via Ref IN can be synchronized.
- (5) **AES/EBU IN** – AES/EBU digital audio input port. The LED is lit when AES/EBU digital is selected for audio input.
- (6) **ANALOG AUDIO IN (1/4" TRS 2ch)** – Balanced audio input ports. The LED is lit when balanced analog is selected for audio input.
- (7) **HDMI IN** – HDMI input port. The LED marked with "V" blinks when HDMI is selected for video input, and the LED is lit when a stable signal input is detected. The LED marked with "A" is lit when HDMI embedded is selected for audio input.
- (8) **DVI-I IN** – DVI-I input port. The LED blinks when DVI-D or DVI-A is selected for video input. The LED is lit when a stable signal input is detected.
- (9) **ANALOG VIDEO IN** – Analog video input ports. The LED blinks when component, S-Video or composite is selected for video input. The LED is lit when a stable signal input is detected.

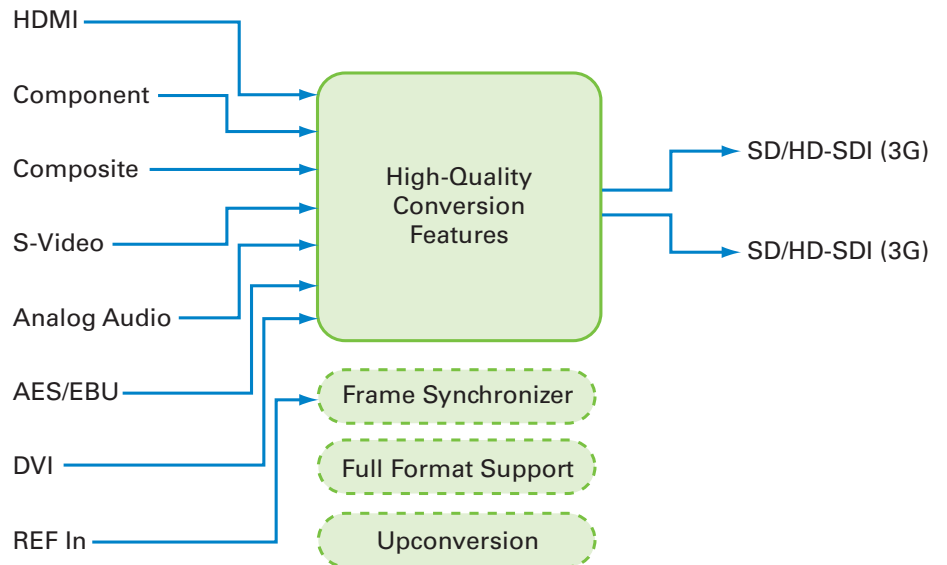
KEY FEATURES

- Any In to (3G) SDI:
 - Converts any type of connection to SDI
 - Incorporates latest 3G technology
- Feature-rich at an affordable price:
 - Latest technology upconverter
 - Integrated frame synchronizer
- Multipurpose converter:
 - DVI input with PC resolution support
 - Audio inputs for audio embedding

Applications

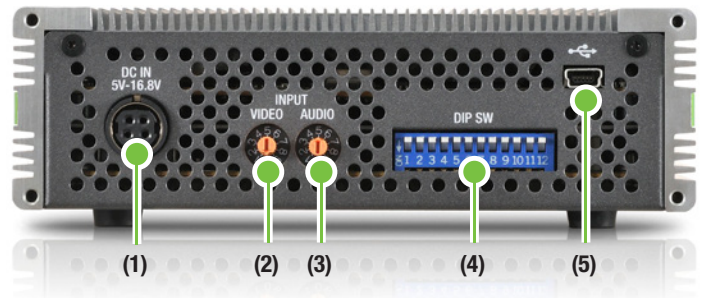
- Conversion from analog to SDI
- Conversion from DVI or HDMI to (3G) HD/SD-SDI
- High-quality upconversion from analog SD to HD or 3G
- Frame synchronization (house sync) of analog signals

Please note that the ADVC G1 does not support frame-rate conversion.



ADVC G1 Any In to SDI Multifunctional Converter/Upconverter with Frame Synchronizer

- (1) **Power connector** – Connects to the DC plug of the accompanying AC adapter.
- (2) **VIDEO INPUT MODE switch** – Use the switch to choose the video input.
- (3) **AUDIO INPUT MODE switch** – Use the switch to choose the audio input.
- (4) **DIP switches** – Use the switches to choose input/output settings.
- (5) **USB port** – Used for firmware update.



SPECIFICATIONS

HDMI Input

Input connector: HDMI

Input resolution:

1080i 60/59.94/50
 1080p 60/59.94/50/30/29.97/25/24/23.98
 720p 60/59.94/50
 480i/p 60/59.94
 576i/p 50
 VGA (640x480), SVGA (800x600)
 XGA (1024x768), SXGA (1280x1024)
 FWXGA (1360x768)
 UXGA (1600x1200)

PC resolution framerate: 60 Hz

Input color format: YCbCr (4:2:2/4:4:4), RGB (4:4:4)

Deep color support: not supported

Color format conversion: YCbCr 4:2:2 12 bits

DVI-D Input

Input connector: DVI-I (DVI-D)

Input resolution:

1080i 60/59.94/50
 1080p 60/59.94/50/30/29.97/25/24/23.98
 720p 60/59.94/50
 480p 60/59.94
 576p 50
 VGA (640x480), SVGA (800x600)
 XGA (1024x768), SXGA (1280x1024)
 FWXGA (1360x768)
 UXGA (1600x1200)

PC resolution framerate: 60 Hz

Input color format: RGB (4:4:4)

Color format conversion: YCbCr 4:2:2 12 bits

DVI-A Input

Input connector: DVI-I (DVI-A)

Input resolution:

VGA (640x480), SVGA (800x600)
 XGA (1024x768), SXGA (1280x1024)
 FWXGA (1360x768)
 UXGA (1600x1200)

Framerate: 60 Hz

Input color format: RGB

Color format conversion: YCbCr 4:2:2 12 bits

Input connector: YPbPr

Component Input

Input connectors: YPbPr

Input resolution:

1080i 60/59.94/50
 1080p 30/29.97/25/24/23.98
 1080PsF 24/23.98
 720p 60/59.94/50
 486i 59.94
 483p 59.94
 576i/p 50

Input color format: YPbPr

Color format conversion: YCbCr 4:2:2 10 bits

Component level: SMPTE/EBU N10, Betacam

SD pedestal: 0 IRE, 7.5 IRE

Composite Input

Input connector: CVBS (common with Component-Y)

Standard: NTSC, PAL

Input color format: YPbPr

Color format conversion: YCbCr 4:2:2 10 bits

SD pedestal: 0 IRE, 7.5 IRE

3DYC separation: not supported

S-Video Input

Input connectors: S-Y/S-C (common with Component-Pb,Pr)

Standard: NTSC, PAL

Input color format: YPbPr

Color format conversion: YCbCr 4:2:2 10 bits

SD pedestal: 0 IRE, 7.5 IRE

Audio Input

Input connectors:

Balanced analog (2ch)
 AES/EBU digital (2ch)
 HDMI embedded (8ch)

(HDMI audio is not available when DVI is chosen for video input.)

HDMI/AES sample rate: 32/44.1/48 kHz

Analog ADC sample rate: 48 kHz

Sample size: 16/20/24 bits

Input level adjust: 0 dBu +4 dBu (available for analog audio)

Reference Input

Input connector: BNC

Sync signal: HD Tri-level/SD BB (auto-detect)

SDI Output

Output connectors: 3G/HD/SD-SDI (BNCx2) (outputs the same signals)

Output resolution:

1080i 60/59.94/50
 1080p 60/59.94/50/30/29.97/25/24/23.98
 1080PsF 30/29.97/25/24/23.98
 720p 60/59.94/50/30/29.97/25/24/23.98
 487i 59.94
 576i 50

Output color format: YCbCr 4:2:2 (ITU-R BT.709/601) 10 bits (ITU-R BT.601 is in SD resolution)

3G-SDI mapping format:

Level A: direct image mapping
 Level B: 2x SMPTE292 HD mapping

Frame freeze function: supported (keeps displaying the final frame when there is no video input signal)

Line 21 closed caption: not supported

Audio Output

Output connectors: SDI embedded (supports outputting with 8ch multiaudio in HDMI input mode. If AES/analog is selected, audio will be embedded to 1/2ch)

Sample rate: 48 kHz

Sample size: 24 bits (3G/HD), 20 bits (SD)

Output level adjust: not supported

Video Resizing

Upconversion: supported

Upconversion mode: (switchable with DIP SW5, SW6)

Through
 720p
 1080i
 1080p

Display mode:

Standard
 Full screen
 Flex view

Framerate conversion: not supported

Internal processing: YCbCr 4:2:2 12 bits

Noise reduction:

3DNR

Stream Clean Processor (quality of the highly compressed video source will be enhanced)
 OFF/Low/High/Auto

Image enhance: Image Enhance Processor can be switched on or off. Detail will be enhanced.

Total delay time:

Interlace to interlace: 2.5 frame
 Interlace to progressive: 2.0 frame
 Progressive to interlace: 3.0 frame
 Progressive to progressive: 2.0 frame

Video Output Synchronize

REF Sync Video output:

Reference signal (BB/HDSync)
 Internal

(REF Sync can be enabled/disabled with DIP SW3. When disabled, or when there is no signal input, the ADVC G1 automatically turns into Internal Sync mode.)

USB

Format: USB2.0 compliant

Connector: Mini B

Specifications

Voltage:

AC adapter:
 – Input: 100V – 240V (50 Hz/60 Hz)
 – Output: DC 12V 3A (max.)
 ADVC G1 unit:
 – Input: DC5 – 16.8V

Maximum power consumption: 11.4W

Dimensions: 142.5 (W) x 42.5 (H) x 98.5 (D) mm (5.61 (W) x 1.67 (H) x 3.88 (D) in.) (projecting parts not included)

Weight: 700g (approx.)

Environmental Characteristics:

Operating temperature: 0-40°C (32-104°F)
 Maximum humidity: 8%-80% (no condensation)



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