

ADVC G1 A

Any In to SDI Converter and Up/Downconverter with Frame Synchronizer



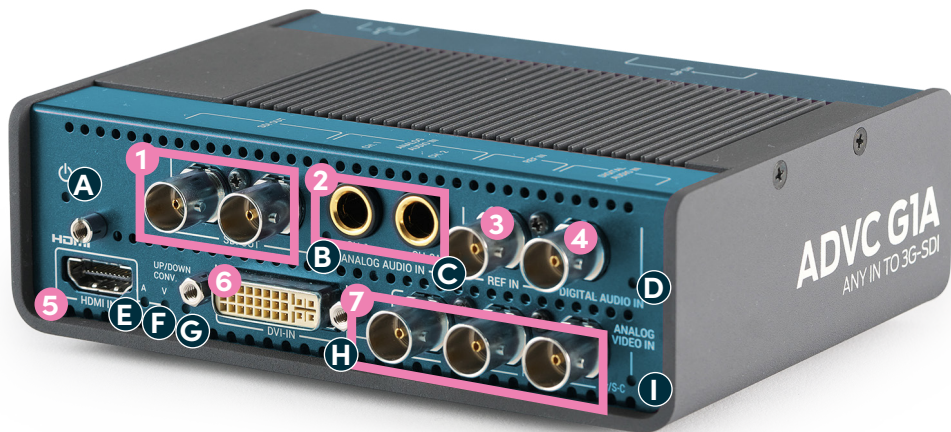
The ADVC G1 A converts and/or up/downconverts HDMI, DVI, component, composite, S-Video, digital audio and analog audio to 3G/HD/SD-SDI.

Unlike other converters, the ADVC G1 A features a frame synchronizer to ensure clean signal processing.

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

The ADVC G1 A will convert sources from HDMI, DVI, component, composite, S-Video, digital audio and analog audio to HD/SD-SDI (3G/1.5G support). The converter can be synchronized with a house reference video signal (auto detected HD tri-level/SD blackburst) to ensure clean signal processing.

The AVDC G1 A can also be used as an audio embedder.



Connectors

1. SDI OUT x 2
2. Analog Audio IN (1/4" TRS 2ch)
3. Reference IN
4. Digital Audio IN
5. HDMI IN
6. DVI IN
7. Analog Video IN
 - Y/CVBS
 - Pb/S-Y
 - Pr/S-C

Indicators

- A. Power LED
- B. Analog Audio IN
- C. Reference IN
- D. Digital Audio IN
- E. HDMI Audio IN
- F. HDMI Video IN
- G. Up/Down Conversion
- H. DVI IN
- I. Analog Video IN (component, composite, S-Video)

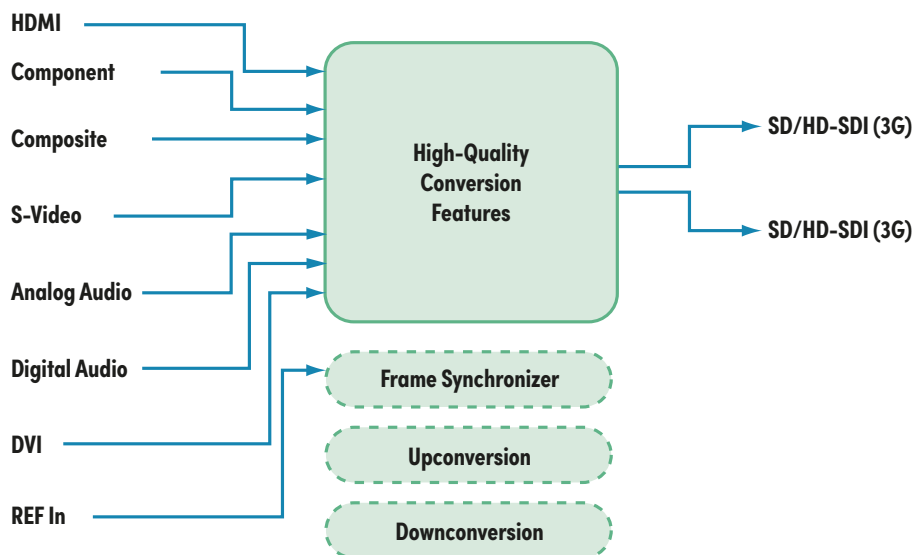


Key Features

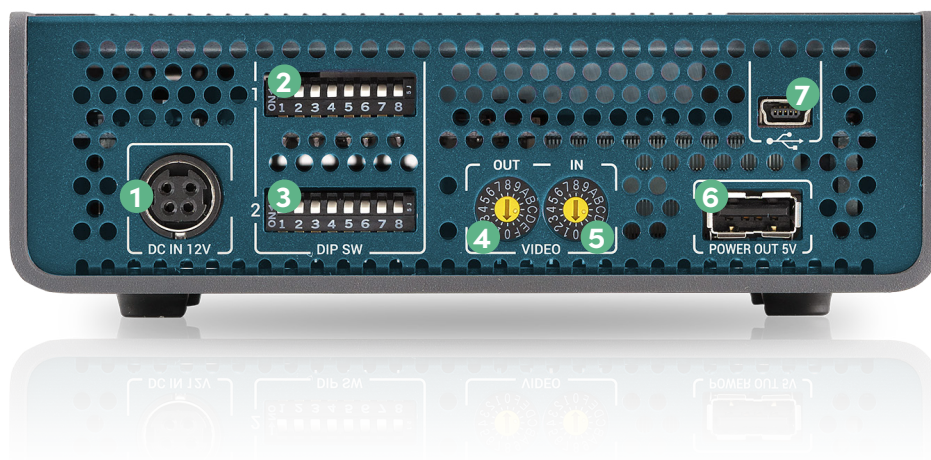
- Any In to (3G) SDI:
 - Converts any type of connection to SDI
 - Incorporates latest 3G technology
- Feature-rich at an affordable price:
 - High quality up/downconverter
 - Integrated frame synchronizer
- Multipurpose converter:
 - DVI input with PC resolution support
 - Audio inputs for audio embedding

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
- Downconversion to SD
- Frame synchronization (house sync) of analog signals



1. Power connector
2. DIP Switch 1
3. DIP Switch 2
4. Video Output Mode switch
5. Video Input Mode switch
6. Power Out port
7. USB port (F/W update or Control use only)



Ordering

ADVC G1 A

Any In to SDI Converter and Up/Downconverter with Frame Synchronizer. Sold in EMEA only.

ADVC G1 A NA

Any In to SDI Converter and Up/Downconverter with Frame Synchronizer. Sold in NA only.

ADVC G1 A APAC

Any In to SDI Converter and Up/Downconverter with Frame Synchronizer. Sold in APAC only.

ADVC G1 A JP

Any In to SDI Converter and Up/Downconverter with Frame Synchronizer. Sold in Japan only.

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 (1366x768)
- UXGA (1600x1200)
- WUXGA(1920x1200)

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 (1366x768)
- UXGA (1600x1200)
- WUXGA (1920x1200)

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 (1366x768)
- UXGA (1600x1200)

Framerate: 60 Hz

Input color format: RGB

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

Component Input

Input connectors: YPbPr

Input resolution:

- 1080i 60/59.94/50
- 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: 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)
- Digital (2ch)
- HDMI embedded (8ch)

(HDMI audio is not available when DVI, HD component, composite with 3D Y/C mode is selected as video input.)

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

Analog ADC sample rate: 48 kHz

Sample size: 16/20/24 bits

Input level adjust (available for analog audio): 0 dBu, +4 dBu, -20 dBu, 0.5 Vrms (2 Vrms FS)

Reference Input

Input connector: BNC

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

(Sync can be set with DIP SW1-2. When set to ON, or when there is no signal input, the ADVG G1-A automatically defaults to Internal Sync mode)

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
- 720p 60/59.94/50
- 486i 59.94
- 576i 50

Output color format: YCbCr 4:2:2 10 bits (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 SMPTE ST 292 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 digital/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
- **Downconversion:** supported
- **Conversion mode:** 486i, 576i, 720p, 1080i and 1080p

Display mode: Full screen, letter box, pillar box; side cut, panoramic

Internal processing: YCbCr 4:2:2 12-bit

Noise reduction: 3DNR

Total delay time: 230 ms (maximum)

USB

Format: USB2.0 compliant

Connector: Mini B

USB power out:

- Connector: Type-A (DC 5V 1,500 mA max.)

Specifications

Voltage:

- AC adapter:
 - Input: 100V – 240V (50 Hz/60 Hz)
 - Output: DC 12V 3A (max.)
- ADVG G1-A unit:
 - Input: DC 12V
 - Maximum power consumption: 20W

Dimensions: 142 (W) x 43 (H) x 104 (D) mm (5.61 (W) x 1.69 (H) x 4.09 (D) in.) (projecting parts not included)

Weight: 580g (approx.)

Environmental Characteristics:

- Operating temperature: 0–40°C (32–104°F)
- Operating humidity: 10%–80% (no condensation)

This product may be protected by one or more patents. For further information, please visit: www.grassvalley.com/patents

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