

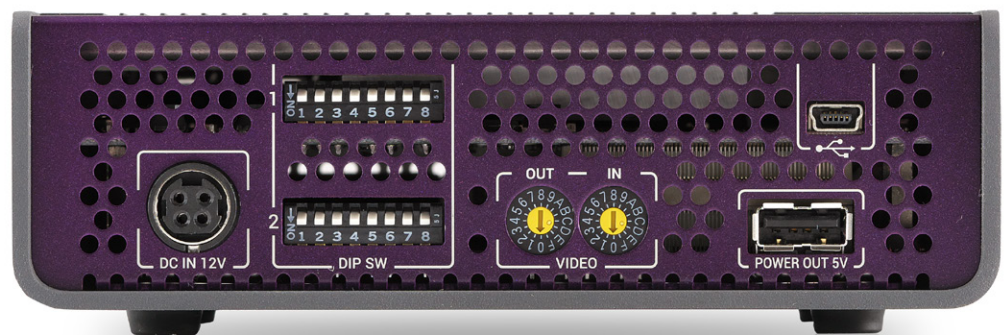
# ADVC G1 A

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.



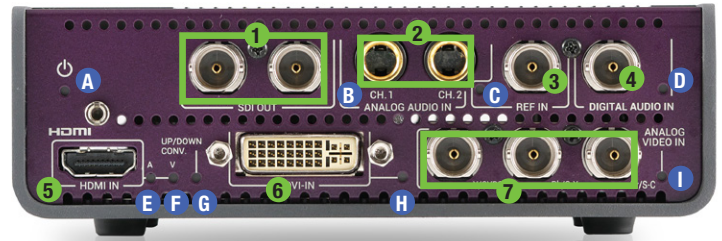
# ADVC G1 A Any In to SDI Converter and Up/Downconverter with Frame Synchronizer



The ADVC G1 A from Grass Valley, a Belden Brand, 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

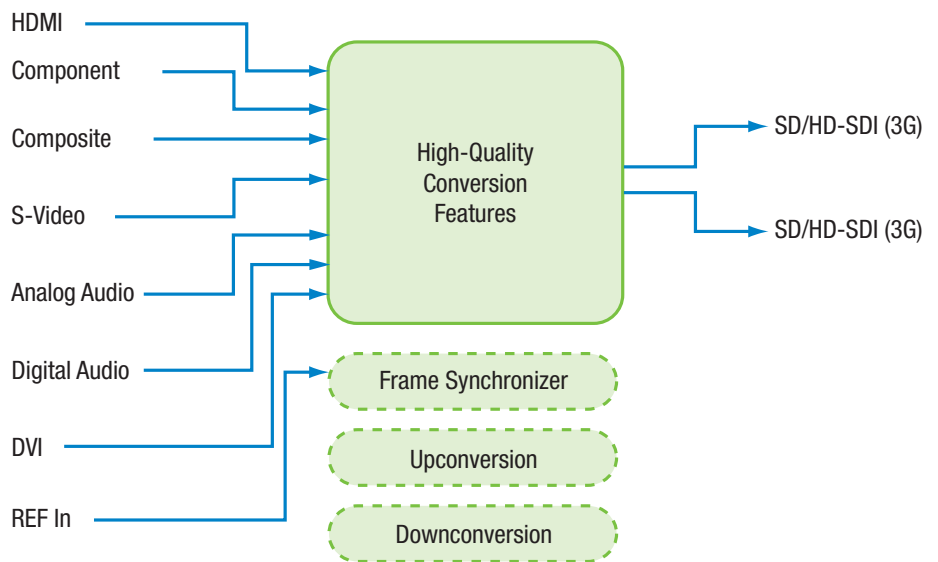
- A. Power LED
- B. Analog Audio IN
- C. Reference IN
- D. Digital Audio IN
- E. HDMI Audio IN
- F. HDMI Video IN
- G. Up/Down Conversion
- H. DVI IN
- I. Analog Video IN (component, composite, S-Video)

## 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



## 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

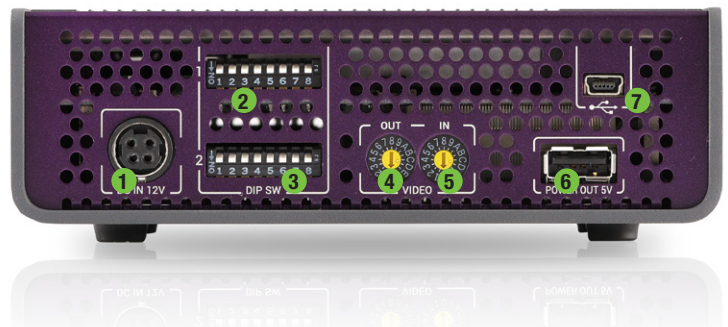
Any In to SDI Converter and Up/Downconverter with Frame Synchronizer. Sold in APAC only.

### ADVC G1 A JP

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

# ADVC G1 A Any In to SDI Converter and Up/Downconverter with Frame Synchronizer

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)



## 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 ADVC 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.)

ADVC 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)



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