ADVC G1 FAQ
FAQ

1 **What happens if there is no reference input signal?**

When no reference signal is present, the ADVC® G1 will generate its own internal reference signal.

2 **What is the delay IN ➡ OUT for ADVC-G1**
- Interlaced to interlaced: 2.5 frames
- Interlaced to progressive: 2.0 frames
- Progressive to interlaced: 3.0 frames
- Progressive to progressive: 2.0 frames

3 **ADVC G1 has DVI-IN, what is the refresh rate for PC output?**

ADVC G1 supports 60 Hz for PC output.

4 **What is the setup level for analog video input?**

The setup level is set to 7.5 IRE by default. This can be switched to 0 IRE via a dip switch on the rear panel.

5 **Can the analog audio input level be adjusted?**

Reference level can be switched via a dip switch on the rear panel to 0 dBu or +4 dBu.

6 **ADVC G1 has an upconvert function, but does it have a frame-rate conversion function?**

ADVC G1 does not have any frame-rate conversion capability.

The upconvert function is used to convert SD inputs like S-Video, component video, and composite video to 720p, 1080i, 1080p (selectable in setup) over SDI.

7 **Does ADVC G1 have a downconvert function?**

ADVC G1 does not support downconversion.

8 **What happens when a 4:3 image is output as a 16:9 image?**

Display mode can be changed via a dip switch on the rear panel, for the following outputs:
- Standard (letterboxed with black borders on right and left side of the screen)
- Full Screen (image stretched across the complete screen to fill the screen)
- Flex view (image stretched more across the sides of the screen (and less towards the center of the screen) to fill the screen)

9 **When outputting a 4:3 video to 16:9, is there no mode to cut the top and bottom of the screen?**

The ADVC-G1 does not support this mode.

10 **Can you embed all eight channels of HDMI audio to an SDI output?**

Yes, it is possible. You can also choose which audio to embed into the SDI. However, when a DVI video signal has been chosen as the video input, you cannot choose HDMI audio.

11 **What is the USB connector on the back of the unit for?**

This connector can be used for firmware updates as well as external control, and status monitoring.

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ADVC G2 FAQ

FAQ

1 | **Can ADVC G2 output 3G-SDI as DualLink-SDI?**

No, this functionality is not supported.

2 | **What is the delay between input and output of the ADVC G2 when downconverting?**

One frame.

3 | **When using a 3G-SDI 1080/60p input, is it possible to have an analog output?**

60p input will be downconverted to PAL, and 59.94p will be downconverted to NTSC.

4 | **Does ADVC G2 support Dolby audio?**

No, it is not supported. HDMI supports 48/44.1/32 kHz and SDI supports linear PCM at 48 kHz.

5 | **Does ADVC G2 support HDCP?**

ADVC G2 does not support HDCP. ADVC G2 cannot be used with output devices supporting HDCP.

6 | **When the audio is eight channels, does the analog audio output get mixed?**

No. Two channels are chosen to be output: channel 1/2, channel 3/4, channel 5/6, or channel 7/8.

7 | **How is 16:9 video input shown in a 4:3 output?**

The following five methods can be selected: Letterbox 16:9, Letterbox 14:9, Letterbox 13:9, Squeeze, Edge Crop

8 | **Can audio delay be corrected in ADVC G2?**

There is no delay between the audio and video with the ADVC G2.

9 | **Can you add a synchronous signal to the SDI throughput?**

It is possible to synchronize the input video to the REF signal, and output it as SDI.

10 | **When output is set to downconvert, is it possible to automatically recognize SD-SDI and directly output it as SD?**

Yes, it is possible.

11 | **What is the USB connector on the back of the unit for?**

This connector can be used for firmware updates as well as external control, and status monitoring.

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ADVC G3 FAQ
FAQ

1 **What formats are supported in the HDMI 3D output?**

Frame Packing, Side-by-Side, and Top-and-Bottom. However, Frame Packing is not supported in 1920x1080p60/59.94/50 or SD (720x486/720x576).

2 **What is meant by 'fast PLL locking'?**

The importance of phase-locked loop (PLL) is illustrated when taking multiviewer outputs from a routing switcher, and using the G3 to convert from SDI to HDMI. Competitive products can take as long as 10 seconds to get the signal usable, whereas the G3 will be much quicker (approximately 2 seconds).

3 **What is the delay between input and output for ADVC G3?**

0-2 frames delay, when using 3D multiplexing.

4 **How is the 8-channel audio mapped in SDI embedded audio and HDMI embedded audio?**

Channels are mapped according to HDMI and SDI (Digital Cinema) standards—channels 3 and 4 are swapped.

Channel #	SDI IN	HDMI OUT
1	L/Left	L/Left
2	R/Right	R/Right
3	C/Center	LFE/Screen
4	LFE/Screen	C/Center
5	Ls/Left Surround	Ls/Left Surround
6	Rs/Right Surround	Rs/Right Surround
7	Lc/Left Center	Lc/Left Center
8	Rc/Right Center	Rc/Right Center

5 **ADVC G3 supports 1920x1035 with SDI input format, but what happens when the video is output via HDMI?**

1920 x 1035 is converted to 1920 x 1080.

6 **What happens to the output when the input signal is suddenly removed?**

ADVC G3 will display the last full frame, and audio will be muted.

7 **When an 8-channel audio input is output as 2-channel analog audio, which channel is used?**

The following output channels can be chosen, but not mixed: channel 1/2, channel 3/4, channel 5/6, or channel 7/8.

8 **What is the USB connector on the back of the unit for?**

This connector will be used in the future for firmware updates as well as external control, and status monitoring.

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ADVC G4 FAQ
FAQ

1 **What is the Ref-In used for?**

The Ref-In is used for duplicating an existing signal, or, for example stacking multiple ADVC G4s together for more than nine outputs.

2 **What is the sampling rate of the ADVC G4 Audio Reference?**

Audio Reference only supports 48 kHz; it does not support 32/44.1 kHz.

3 **What are the detailed specifications for DARS?**

AES-11, 48 kHz, grade-2. Can be switched between silent and 1 kHz tone.

4 **How accurate is the ADVC G4 clock?**

+-4.0 parts per million (ppm).

5 **Can ADVC G4 output HD test patterns?**

No, test patterns are only available in SD (NTSC/PAL).

6 **Are the video reference and audio reference synchronized?**

Yes.

7 **What is the USB connector on the back of the unit for?**

This connector will be used in the future for firmware updates as well as external control, and status monitoring.

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ADVC G-SERIES
I/O AND FORMAT COMPARISON GUIDE

	Model	ADVC G1	ADVC G2	ADVC G3	ADVC G4
	Description	Any In, SDI Out	SDI & HDMI In to Analog & SDI	2 x SDI to HDMI 1.4 with 3D support	Sync Generator with Reference In
Input	HD-SDI / SD-SDI	No	Yes	Yes (x2)	No
	HDMI	Yes	Yes	No	No
	DVI	Yes	No	No	No
	Analog RGB	Yes	No	No	No
	Component	Yes	No	No	No
	S-Video	Yes	No	No	No
	Composite	Yes	No	No	No
	Analog Audio	Yes	No	No	No
	AES/EBU	Yes	No	No	No
	Ref In (frame synchronizer)	Yes	Yes	No	Yes
Output	Upconversion	Yes	No	No	No
	Downconversion	No	Yes	No	No
	HD-SDI / SD-SDI	Yes (x2)	Yes (x2)	No	No
	HDMI	No	No	Yes	No
	3D Muxing	No	No	Yes	No
	DVI	No	No	No	No
	Analog RGB	No	No	No	No
	Component	No	Yes	No	No
	S-Video	No	Yes	No	No
	Composite	No	Yes	No	No
	AES/EBU	No	Yes	Yes	No
	Analog Audio	No	Yes	Yes	No
	Ref Out	No	No	No	Yes (x9)
Format Support	PAL / NTSC	Yes	Yes	Yes	Yes
	PC Resolution	Up to 1920 x 1200	No	No	No
	1080i50	Yes	Yes	Yes	Yes
	1080i59.94	Yes	Yes	Yes	Yes
	1080i60	Yes	Yes	Yes	Yes
	1080p23.98	Yes	Yes	Yes	Yes
	1080p24	Yes	Yes	Yes	Yes
	1080p25	Yes	Yes	Yes	Yes
	1080p29.97	Yes	Yes	Yes	Yes
	1080p30	Yes	Yes	Yes	Yes
	1080p50	Yes	Yes	Yes	No
	1080p59.94	Yes	Yes	Yes	No
	1080p60	Yes	Yes	Yes	No

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ADVC G-SERIES
I/O AND FORMAT COMPARISON GUIDE

Model	ADVC G1	ADVC G2	ADVC G3	ADVC G4
Description	**Any In, SDI Out**	**SDI & HDMI In to Analog & SDI**	**2 x SDI to HDMI 1.4 with 3D support**	**Sync Generator with Reference In**
Format Support (cont.)				
720p23.98	Yes	Yes	Yes	Yes
720p24	Yes	Yes	Yes	Yes
720p25	Yes	Yes	Yes	Yes
720p29.97	Yes	Yes	Yes	Yes
720p30	Yes	Yes	Yes	Yes
720p50	Yes	Yes	Yes	Yes
720p59.94	Yes	Yes	Yes	Yes
720p60	Yes	Yes	Yes	Yes
1080psf23.98	Yes	Yes	Yes	Yes
1080psf24	Yes	Yes	Yes	Yes
1080psf25	Yes	Yes	Yes	Yes
1080psf29.97	Yes	Yes	Yes	Yes
1080psf30	Yes	Yes	Yes	Yes
1035i59.94	No	Yes	Yes	No
1035i60	No	Yes	Yes	No
Input Signals				
SMPTE 259M	No	Yes	Yes	No
SMPTE 292M	No	Yes	Yes	No
SMPTE-424	No	Yes	Yes	No
YPbPr (SD)	Yes	No	No	No
EBU-N10 (SD)	Yes	No	No	No
Betacam (SD)	Yes	No	No	No
YC (SD)	Yes	No	No	No
YPbPr (HD)	Yes	No	No	No
HDMI	Yes	Yes	No	No
Output Signals				
SMPTE 259M	Yes	Yes	No	No
SMPTE 292M	Yes	Yes	No	No
SMPTE-424	Yes	Yes	No	No
YPbPr (SD)	No	Yes	No	No
EBU-N10 (SD)	No	Yes	No	No
Betacam (SD)	No	Yes	No	No
YC (SD)	No	Yes	No	No
YPbPr (HD)	No	Yes	No	No
HDMI	No	No	Yes	No

ABOUT GRASS VALLEY

The new Grass Valley keeps broadcasters, content owners, and service providers future-ready as they navigate the changing landscape of television. With the most comprehensive collection of workflow solutions in the industry, Grass Valley delivers end-to-end television production and content distribution workflows that enable the efficiency and flexibility broadcasters need to stay competitive today—while offering technological foresight they need to keep pace with consumers' desires for more content on more devices. Grass Valley, headquartered in Montreal, leverages the collective expertise and depth of the Grass Valley Group and Miranda Technologies, each having been acquired by St. Louis-based Belden Inc. Belden delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio, and video needed for today's applications, Belden is at the center of the global transformation to a connected world. For more information visit www.belden.com.

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