

Technical specifications of the new IF-2D3D1 Image Processor

JVC's new **IF-2D3D1 Image Processor** converts 2D video resources, including high-quality HD, into a variety of 3D formats with speed and simplicity thanks to industry-first algorithms developed by JVC. The 2D-to-3D converter - which performs real-time conversion - supports L/R mixing during 3D recording, which cuts the time required for 3D content creation. This groundbreaking unit is the key to transforming your workflow, providing new solutions for virtually any 3D content creation scenario, whether repurposing 2D resources or shooting new material in 3D.

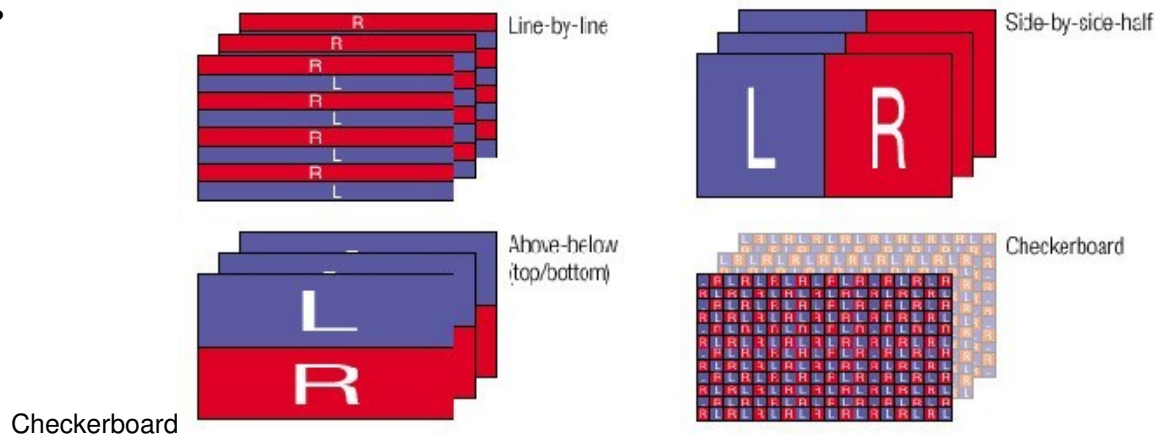
Real-time 2D/3D conversion using unique JVC algorithms

JVC's 2-D/3-D technology is by far the most advanced and efficient real time conversion technology that exists. Connect a conventional 2D high definition source to either the HDSDI or the HDMI input. The source can be either a live camera or recorded material. Each frame of the the 2D signal is analysed with depth estimates based on content. Parallax and intensity adjustments can be made to adjust the 3D effect. A stereoscopic output is generated in real time. Select from four different 3D mixed formats for stereo video output, or output the L/R signals separately for editing.

Compatible with a wide range of 3-D mixed formats

For maximum flexibility you can pick from four 3D mixed formats* for stereo video output:

- Line-by-line
- Side-by-side-half
- Above-below
- Checkerboard



*Depending on the format of the input signals, the choice of output formats may be limited.

In addition, you can output discrete L & R signals for processing or dual projection, and also stereo output for TV display using the HD-SDI and HDMI outputs (1 each). This means you can hook up the **IF-2D3D1** directly to projectors, LCD and PDP displays. Anaglyph and sequential viewing modes offer additional convenience providing multiple ways to check 3D content.

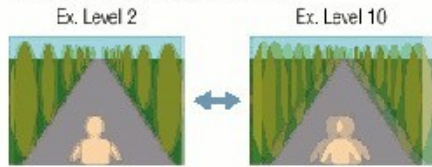
Parallax and 3D Intensity adjustment

For enhancing the 3D effect to make it easier to view, the IF-2D3D1 offers two adjustments, Parallax and 3D Intensity.

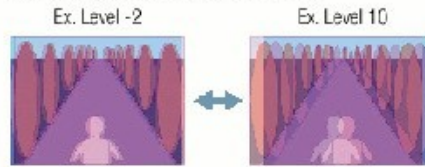
Parallax adjustment: This displaces the left-eye and right-eye images horizontally, offering a choice of 3 different

viewing modes. With Parallax 1, you can adjust the images naturally, while Parallax 2 presents anaglyph images. The third mode is Parallax 3, which allows you to make adjustments while displaying the left and right images sequentially.

Parallax 1: Adjust natural images

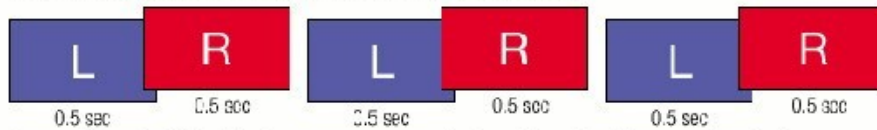


Parallax 2: Adjust anaglyph images



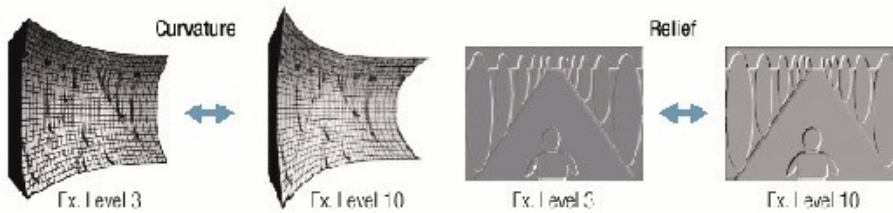
This makes it easy to check the left-eye image (red) and right-eye image (blue) as well as the foreground image and background image.

Parallax 3: Adjust the images while displaying L and R sequentially



Sequential mode is ideal for the content creator who doesn't require 3D glasses for viewing.

3D Intensity adjustment: This allows virtual, simultaneous adjustment of curvature and relief, to manipulate the intensity of the 3D effect. As with Parallax adjustment, there are three viewing modes: Intensity 1 (natural), Intensity 2 (anaglyph), and Intensity 3 (sequential).



You can adjust curvature and relief simultaneously.

The table shows what inputs the IF-2D3D1 accepts and what signals it can output.
Input/output signal formats:

Note ●: Yes LtL: Line-by-line Sbs Side-by-side-half AD: Above-below CB: Checkboard

Input		2D/3D converter	Functions		Output							
			3D LR mixer	3D	3D mixed formats			HDMI		HDMI		
					LtL	Sbs	AB*1	CB	3D mix	Discrete*1	3D mix	Discrete*1
HDMI stereo 4:2:2 (for mixing)	1080	6Cp	●	●	●	●	●	●	●	●	●	●
		bLp	●	●	●	●	●	●	●	●	●	●
		3Cp	●	●	●	●	●	●	●	●	●	●
		2Fp	●	●	●	●	●	●	●	●	●	●
	720	24p	●	●	●	●	●	●	●	●	●	●
		60i	●	●	●	●	●	●	●	●	●	●
		50i	●	●	●	●	●	●	●	●	●	●
		6Cp	●	●	●	●	●	●	●	●	●	●
HDMI single 4:2:2 (for 2D/3D conversion)	1080	5Cp	●	●	●	●	●	●	●	●	●	●
		3Cp	●	●	●	●	●	●	●	●	●	●
		2Fp	●	●	●	●	●	●	●	●	●	●
		24p	●	●	●	●	●	●	●	●	●	●
	720	60i	●	●	●	●	●	●	●	●	●	●
		50i	●	●	●	●	●	●	●	●	●	●
		6Cp	●	●	●	●	●	●	●	●	●	●
		5Cp	●	●	●	●	●	●	●	●	●	●
HDMI Video	1080	6Cp	●	●	●	●	●	●	● ²	● ²	●	●
		5Cp	●	●	●	●	●	●	● ²	● ²	●	●
		3Cp	●	●	●	●	●	●	● ²	● ²	●	●
		2Fp	●	●	●	●	●	●	● ²	● ²	●	●
	720	24p	●	●	●	●	●	●	● ²	● ²	●	●
		60i	●	●	●	●	●	●	● ²	● ²	●	●
		50i	●	●	●	●	●	●	● ²	● ²	●	●
		6Cp	●	●	●	●	●	●	● ²	● ²	●	●
HDMI PC	1080	5Cp	●	●	●	●	●	●	● ²	● ²	●	●
		3Cp	●	●	●	●	●	●	● ²	● ²	●	●
		2Fp	●	●	●	●	●	●	● ²	● ²	●	●
		24p	●	●	●	●	●	●	● ²	● ²	●	●
	720	60i	●	●	●	●	●	●	● ²	● ²	●	●
		50i	●	●	●	●	●	●	● ²	● ²	●	●
		6Cp	●	●	●	●	●	●	● ²	● ²	●	●
		5Cp	●	●	●	●	●	●	● ²	● ²	●	●
HDMI PC	1080	UXGA (1920x1200) ^{*1}	●	●	●	●	●	●	●	●	●	●
		UXGA@60 (1600x1200) ^{*4}	●	●	●	●	●	●	●	●	●	●
		UXGA+@60 (1600x1050) ^{*4}	●	●	●	●	●	●	●	●	●	●
		UXGA@60 (1280x1024) ^{*4}	●	●	●	●	●	●	●	●	●	●
	720	WXGA@60 (1280x768) ^{*4}	●	●	●	●	●	●	●	●	●	●
		XGA@60 (1024x768) ^{*4}	●	●	●	●	●	●	●	●	●	●
		SVGA@60 (800x600) ^{*4}	●	●	●	●	●	●	●	●	●	●
		WVGA@60 (652x480)	●	●	●	●	●	●	●	●	●	●
720	VGA@5C (640x480) ^{*5}	●	●	●	●	●	●	●	●	●	●	
	VGA@60 (640x480) ^{*5}	●	●	●	●	●	●	●	●	●	●	
	VGA@60 (640x480) ^{*5}	●	●	●	●	●	●	●	●	●	●	
	VGA@60 (640x480) ^{*5}	●	●	●	●	●	●	●	●	●	●	

*1: Above-below is available only when 3D mixed is selected for HD-SDI or HDMI output.

*2: HDCP-protected content cannot be output.

*3: VESA CVT-RB for reduced horizontal/vertical blanking on non-CRT displays.

*4: VESA.

*5: VESA industry standard timing.