

## Hi5-3D 3G/HD-SDI Multiplexer To HDMI 1.4a and SDI Video and Audio Converter



The Hi5-3D is a 3D video multiplexer that combines two 3G or HD-SDI Inputs into various multiplexed 3D formats for output on HDMI 1.4a and HD-SDI. The HDMI 1.4a output supports EDID transactions that allow automatic 2D/3D configuration per the HDMI monitor's capabilities. Input SDI 2 will be frame synchronized to input SDI 1 in 3D Modes. Embedded SDI input audio is embedded in both the HDMI and SDI outputs. 2 channel RCA audio output is also supported with user control of channel selection. The Hi5-3D supports AJA's Mini-Config application for user configuration and firmware download.

### 3D Modes Supported

The Hi5-3D supports, depending on the video format, "side-by-side", "top-bottom", and "frame-packing" 3D modes. The "side-by-side" and "top-bottom" modes involve compressing, either horizontally or vertically, each input for combining into a single video stream at the same rate of the inputs. The "frame-packing" mode stacks two full resolution inputs into a "tall" frame (at twice the clock and line rates). When selected, "frame-packing" can only be used with 23.98/24Hz input frame rates.

Each input, in addition to 3D processing, can be flipped either horizontally, vertically, or both. This control is provided by 4 switches that can be engaged in any combination.

### Format support

The Hi5-3D works with both 2D and 3D inputs. When in the 2D mode, the input is simply passed to the output unmodified. In the 3D mode, the Hi5-3D supports the minimum required 3D modes as defined by the CEA for HDMI 1.4a televisions.

#### CEA Required 3D modes:

2xSDI	1.5gb	720p50/59.94/60	T/B
2xSDI	1.5gb	1080p23.98/24	T/B, FP
2xSDI	1.5gb	1080psf23.98/24	T/B, FP
2xSDI	1.5gb	1080i50/59.94	S/S

#### Notes:

"psf" inputs are converted to "p" for HDMI output.  
The SDI output can support S/S and T/B formats only.  
Future software versions may add other frame rates.

### User Control

The Hi5-3D supports both dipswitch control and host control via the Mini-Config application. One of the dipswitches is a "Local/Remote" switch. When in the "Local" mode, the remaining dipswitches support a subset of the user controls. When in the "Remote" mode, AJA's Mini-Config application controls the unit (or control as last set).

### Specifications

#### Input Formats:

- 720p 50/59.94/60 • 1080i 50/59.94/60 • 1080p23.98 • 1080p24 • 1080p25

#### Video inputs:

- Dual 3G and HD-SDI (auto-selected), SMPTE-292/296/424, 2x BNC
- 1 SDI for left eye input (10-bit)
- 1 SDI for right eye input (10-bit)

#### Video output:

- 10-bit HDMI v1.4a
- 1 3G/HD-SDI output, 10-bit

#### Audio Outputs:

- HDMI embedded audio, 2 or 8 channels
- 2 RCA-style analog outputs at -10dBV (nominal), User assignable channels

#### Size:

- 5.8" x 3.1" x 1" (147mm x 79mm x 25mm)

#### Power:

- +5-20 VDC regulated, 5 watts (AJA power supply model DWP or DWP-U recommended)

#### NOTE:

The Hi5-3D does not encode the HDMI output with HDCP encryption. By definition, SDI inputs to the Hi5-3D are unencrypted.

### Features

- 3G/HD-SDI to HDMI 1.4a with additional SDI output
- 10-bit HDMI 1.4a support including 3D and embedded audio
- Additional 2 Channel RCA jack audio output
- Setup via Dipswitch or PC/Mac using USB port and supplied USB cable (USB configuration software application supplied on CD)
- Uses 5-20V power (supply sold separately)
- 5 year warranty

### Application Example

