

Image: EvolutionX3

Convert & Scale SDI

3D processor:

- Support for many 3D formats, line by line side by side, and dual stream

Convert and scale:

- SD/HD/dual-link HD/3G SDI

Input/output formats supported

- Progressive, interlaced, and PsF

Closed captioning and time code support

X3 GUI provides system control



Maximize your returns on production costs with powerful 3D processing, image conversion and scaling

The demands and advances of 3D, high definition (HD), and handling multi-formats is the primary impetus behind Thinklogical's broadcast/post-production solution, the ImageEvolution. The ImageEvolution X3 not only converts and scales video signals in real-time; it provides the highest quality images for professional audio-visual end users.

Designed as a high performance video processor for post-production and broadcast applications, the ImageEvolution provides exceptional and enhanced image processing and quality. This stand-alone product allows for advanced real-time image correction and scaling, while at the same time functioning as a video converter which supports input/output of SD/HD/dual-link HD/3G SDI. In addition, the ImageEvolution X3 is full SMPTE compliant, including the active loop out ports.

ImageEvolution X3 can deliver true 1080i, 1080sf, 1080p and 720p without any degradation in video performance

Unique in the broadcast post-production market place, this highly affordable processor imparts a robust integrated design, which in turn offers an extraordinary set of high-end features in a single device. Real-time adaptive scaling and noise reduction saves users time and money, while providing exceptional image results. The ImageEvolution X3 also provides for up to 20 user programmable presets which make image conversion and scaling effortless.

System features include support for up to eight channels of embedded audio with user controllable audio delay that can adjust the delay to +/- 50 milli-seconds. The Image Evolution allows for transmission of the time code and supports SMPTE RP-188-1999. In addition it supports closed captioning under SMPTE 334M (processing 608 data within the CDP 708 stream). Users are able to control the ImageEvolution X3 through the X3 GUI control software or through its front panel multi-function selector and LCD display. Serial ports (RS-232C, RS-422), along with an Ethernet port are available for remote control of the user interface. An internal universal AC power supply, means no wall wart, so the product can easily be stand-alone or rack mounted.

Product Features

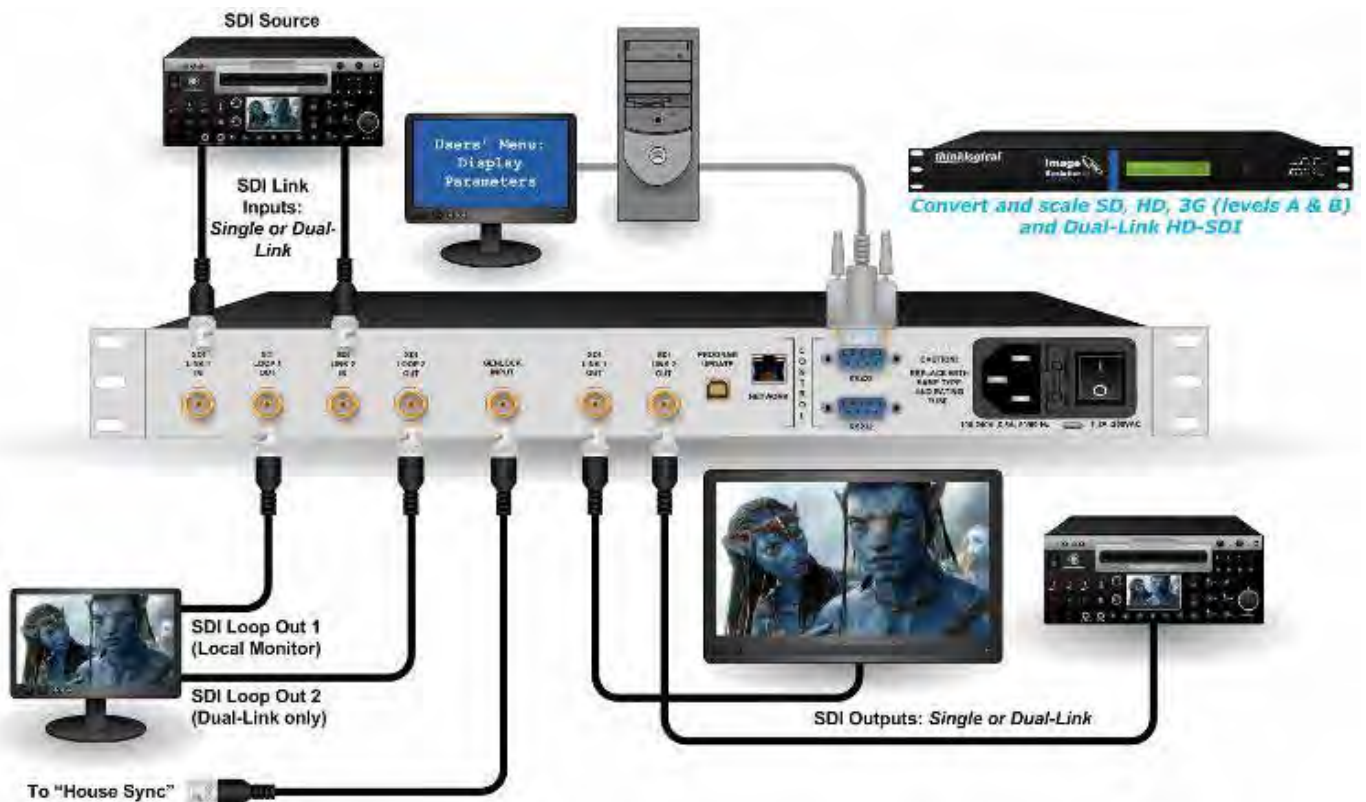
- Input and output: SD, HD/dual-link HD/3G SDI
- Input and output formats supported: progressive, interlaced, PsF
- Supports Closed Captioning and Time Code
- SMPTE standards supported: 259M-C, 292, 372M, 424M, 425 level A and level B
- Active SMPTE compliant loop out ports
- X3 GUI designed for ease-of-use and system control
- Internal universal AC power supply
- Supports eight channels of embedded audio with user controllable audio delay
- 20 user programmable presets
- Switch embedded SDI audio channels from any input to any output
- Automatic video input detection
- Genlock input for house sync

3D Processing Features

- Conversion of dual stream HD-SDI input to side-by-side 3G-SDI or HD-SDI output
- Conversion of dual stream HD-SDI input to line interleaved 3G-SDI output
- Conversion of dual stream HD-SDI input to dual stream HD-SDI output
- Conversion of side-by-side 3G-SDI or HD-SDI to a 2D right half image 3G-SDI or HD-SDI output

Video Processor Features:

- Per-pixel motion-adaptive video noise reduction – removes the white Gaussian noise present in most types of video
- Content-adaptive block and mosquito noise reduction – significantly reduces the blocking and mosquito noise artifacts present in compressed video
- Advanced per-pixel, motion-adaptive, edge-adaptive 3D de-interlacing with support for arbitrary film cadences – removes “jaggies” and “feathering” to product smooth and clear images
- Adaptive scaling – produces sharp and clean images at low or high resolutions
- Natural depth expansion – enhances details and sensation of depth for greater realism and super resolution effect
- Adaptive contrast enhancement (ACE) – brings out shadow detail without crushing mid-tones or highlights
- Intelligent color remapping (IRC) – enables vivid color without hue shifts and clipping while maintaining accurate flesh tone
- Qdeo™ true color – a unique solution for using the full dynamic range of 10-bit and 12-bit displays which eliminates contouring seen when viewing typical 8-bit consumer video



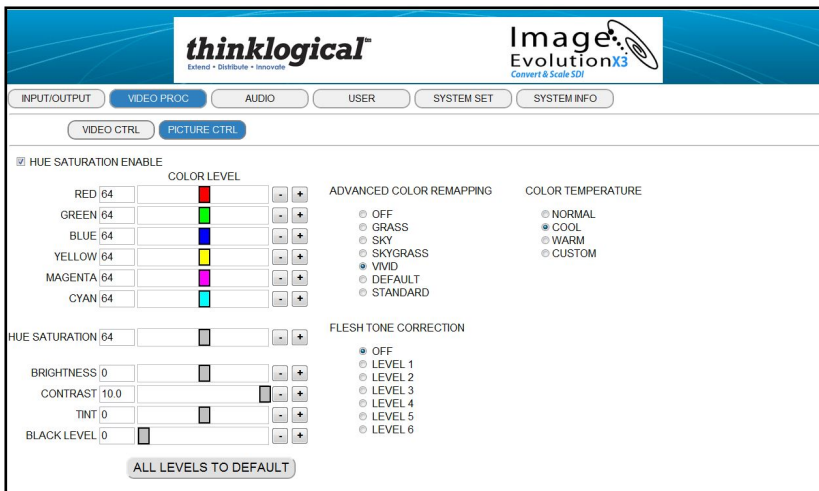
Typical ImageEvolution X3 application: Convert and scale SD/HD/Dual-Link HD/3G SDI

Control Software - X3 GUI

The graphical user interface (GUI) for the ImageEvolution X3 was developed for ease of use in order to create, set, and recall custom configurations. The X3 GUI is comprised of six main menus for product configurations, system setup and information:

- Input/output
- Video processor
- Audio
- User configurations
- System settings
- System information

In addition, there are sub-menus under the video processor menu for video control and picture control.



Video processor menu: Video control sub-menu



Video processor menu: Picture sub-menu

Specifications

Frame Rate Formats Supported: Progressive, Interlaced, PsF

Function	Video Standards Supported	Formats
SD-SDI	SMPTE 259M-C	PAL and NTSC
HD-SDI	SMPTE 292M	All standard HD-SDI compatible formats
Dual-link HD-SDI	SMPTE 372M	All 1080 line video formats compatible with SMPTE 372M
3G-SDI	SMPTE 424M, 425M, Level A and B	All SMPTE 425 level A and B compatible formats

Supply Voltage: 100-240 VAC, 50-60 Hz Universal AC power supply

Operating Temp.: 0°-50°C; (32°-122°F)

Humidity: 5-95% RH, non-condensing

Dimensions:

Rack Size: EIA 19"

Height: 1U-1.72" (43.69mm)

Depth: 9.5" (241.3mm)

Width: 17.49" (444.2mm)

Power Consumption: 26 watts per unit

Compliance: Approvals for US, Canada, and European Union

Warranty: 12 months from date of shipment

Extended warranties available

Ordering Information

ImageEvolution X3 - IEC-000003

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