



SYNAPSE
CONVERTER



CONVERT VIDEO AND AUDIO STREAMS IN REAL TIME BETWEEN
AN EXTENSIVE RANGE OF INDUSTRY STANDARD FORMATS

ANALOG ⇒ SDI

HDMI ⇒ SDI

SDI ⇒ HDMI

ANA140
ANALOG ⇒ SDI

BLUEFISH444
ANALOG TO HD/SD-SDI CONVERTER



HDMI120
HDMI ⇒ SDI

BLUEFISH444
HDMI TO HD/SD-SDI CONVERTER



SDI 110
SDI ⇒ HDMI

BLUEFISH444
HD/SD-SDI TO HDMI CONVERTER



	A/V INPUTS	CONVERSIONS	A/V OUTPUTS	FEATURES
Analog Video Inputs	1 x YUV, 1 x S-video 1 x Composite	1 x Analog => 2 x HD-SDI (3Gb/s)	2 x HD-SDI (3Gb/s)	HD SDI Downconversion PsF Modes Redundancy Channel HD/SD-SDI Preview
Audio Inputs	1 x Stereo unbalanced audio 1 x digital audio AES/EBU pair	Muxed with video input => Embedded Audio	2 x Embedded Audio	

Synapse conversions from Analog to HD/SD-SDI are configured via DIP switches on the side of the converter.

YUV, S-Video or Composite Analog video is converted to 2 X HD/SD-SDI (3Gb/s). Stereo pair Analog audio, or, stereo pair AES EBU audio signals are muxed together with Analog video inputs and converted to 2 channels of embedded audio within the resulting HD/SD-SDI streams.

Two HD/SD-SDI outputs are available after conversion. The second can be used as a backup in the event of redundancy, or, as a downconverted simultaneous HD/SD-SDI output for preview.

An on screen display utility provides status information about the configuration settings of the converter and an embedded pattern generator is available to calibrate 3rd party monitors.

	A/V INPUTS	CONVERSIONS	A/V OUTPUTS	FEATURES
Video Inputs	2 x HDMI1.3 8 Channels of Embedded Audio	1 x HDMI1.3 => 2 x HD-SDI (3Gb/s)	2 x HD-SDI (3Gb/s) 8 Channels of Embedded Audio	HD SDI Downconversion PsF Modes Redundancy Channel HD/SD SDI Preview
Audio Inputs	1 x Stereo unbalanced audio 1 x digital audio AES/EBU pair	Muxed with HDMI input => Embedded Audio	2 x Embedded Audio	

HDMI 1.3 Input supports 8 channels of embedded audio and 8/10/12 bit acquisition.

A second HDMI input is provided for redundancy, providing a fail safe mechanism should the first HDMI input be lost. Independent stereo Analog and Digital audio inputs can be muxed together with HDMI and output and HD/SD-SDI with 2 channels of embedded audio in SDI.

Two HD/SD SDI outputs are provided. The second can be used as a backup in the event of redundancy, or, as downconverted simultaneous HD/SD SDI outputs for preview.

An on screen display utility provides status information about the configuration settings of the converter and an embedded pattern generator is available to calibrate 3rd party monitors.

	A/V INPUTS	CONVERSIONS	A/V OUTPUTS	FEATURES
Analog Video Inputs	2 x HD/SD-SDI 3G/bs	1 x HD/SD-SDI 3G/bs => 1 x HDMI 1.3	1 x HDMI 1.3 1 x HD-SDI (3Gb/s)	HD SDI Downconversion PsF Modes Redundancy Channel HD/SD-SDI Loop
Audio Inputs	8 Channels of Embedded Audio	Embedded Audio => Stereo Analog/Digital Audio	1 x Stereo Unbalanced Audio 1 x digital AES/EBU Pair	

Synapse conversions from HD/SD-SDI to HDMI include video scaling, PsF mode and de-interlacing, all configured via dip switches on the side of the converter.

The HD/SD-SDI input signal is simultaneously displayed as an HD/SD SDI loop through. A second SDI input is provided for redundancy, providing a fail safe mechanism should an input be lost.

An on screen display utility provides status information about the configuration settings of the converter and an embedded pattern generator is available to calibrate 3rd party monitors.

AT A GLANCE	SDI110	HDMI120	ANA140
Video/Audio Input	3G/HD/SD	HDMI1.3	CVBS/YPBPR/S-VIDEO
Video/Audio Output	HDMI1.3	3G/HD/SD SDI	3G/HD/SD SDI
Audio Input	SDI EMBEDDED	HDMI/AES/ANA	AES/ANA
Audio Output	HDMI/AES/ANA	SDI EMBEDDED	SDI EMBEDDED
2nd Copy Output	NA	SDI 2	SDI 2
2nd Failsafe Input	SDI 2	HDMI 2	NA
SDI Loop Output	SDI LOOP	NA	NA
Downconverter	YES	YES	YES
On Screen Status	YES	YES	YES
De-Interface	YES	NA	NA
PsF Mode	YES	YES	YES



“Vizrt is pleased to qualify and recommend the Bluefish444 Synapse converters because they are reliable and tailored to broadcasters needs.”

Gerhard Lang, Chief Engineering Officer, Vizrt



“The analog to SDI conversion is flawless... Our impression of the product is simple amazement. It’s cost effective, flawless, and has exceeded all our expectations.”

Walter Procek, President, Reboot Entertainment



“We are very happy with the performance and the economy of the products. They were easy to configure out of the box, and they do what we need them to do. I believe they have solved two important issues in our video editing workflow, and they have performed rock-solid.”

Wayne Mills, Avid Certified Trainer, Southern Illinois University Edwardsville