

Number of Channels

Two independent channels.

Standards Conversion

The module offers a linear 4 field standards converter. The proprietary algorithm with selectable apertures guarantees state of the art professional quality. WSS and VideoID are supported.

Frame Synchronization & Timebase Correction

A full frame TBC feature is included with adjustable and flexible system timing using analog genlock reference input.

Video Noise Reduction

Powerful recursive video noise reduction eliminates random video noise in luminance and chrominance components with a minimum of artifacts. Our long experience in video noise reduction technology ensures that the best results can be derived from impaired input signals.

Detail Enhancement

Horizontal and vertical enhancement (aperture correction) allows significantly improved pictures, even from degraded sources.

Gain, Amplitude and Color Control

The system includes a Proc Amp that gives full control of video gain, black level and Y/C timing.

Timecode

- timecode generation and regeneration
- supports VITC in all VBI lines with auto detection of lines or manual line selection
- supports RP188

Audio

The module processes video signals as well as the associated audio data. The system supports the full set of 16 embedded audio channels.

The delay of the audio channels can be adjusted independently. This is a powerful feature to deal with differences in the processing delay of video and audio and correct potential lip sync problems.

The following list of features illustrates the overall flexibility of the audio subsystem.

- support for all 4 SDI audio-groups (16 channels)
- delay adjustable from 4ms to 1023ms for each channel individually
- automatic delay correction
- level adjustable from $-\infty$ to +18 dB for each channel individually
- fully configurable routing matrix
- support for sampling rates of 32 / 44.1 / 48 kHz

VBI and Test pattern generator

The module features a test pattern generator and a configurable VBI-area.

Transparent processing of VBI and test line insertion for online measurement of signal quality are both supported.

Presets

In addition to the presets provided for several groups of functions, full module presets are also supported. They allow storing and recall of complete module setups.

Presets can also be saved and recalled to/from a PC via IConn.

Quality

XForm Systems is proud to manufacture high quality equipment for the demanding broadcast and studio facilities markets for a long time.

Quality is paramount in our design and manufacturing facilities.

Input Formats and Video Standards

SD SDI Serial Digital Component, 10 Bit,
ITU BT.656 / SMPTE 259M
Genlock Analog Black Burst/CVBS

Output Formats and Video Standards

SD SDI Serial Digital Component, 10 Bit,
ITU BT.656 / SMPTE 259M

Audio Processing

Audio Delay Time 4-1023ms
Audio Gain $-\infty$... +18dB
Number of embedded channels: 16
Internal processing 32 Bit
channel swap via routing matrix
S/N Ratio > 90 dB
THD < 0.1%

Video Processing

Quantizing Scheme 4:2:2 conforming to
ITU BT656, SMPTE 259M
Enhancement Horizontal and Vertical, Y/C separately
Noise Reduction Recursive Y and C up to 20 dB
Full Frame TBC
4 Field linear Standards Conversion with spatio
temporal adaptive interpolation

Aspect Ratio Signalling

Input WSS (ITU-R BT.1119-2),
VideolD (IEC 61880-1)

Output WSS (ITU-R BT.1119-2),
VideolD (IEC 61880-1)

Frequency Response

Luminance 5.5 MHz, 0.5 dB

Timecode

VITC, SMPTE RP188
59.94Hz DropFrame and non-DropFrame

Power Requirements

Power Consumption <15 Watts

Physical

Temperature 0°C - 35°C (operation)
-20°C - 75°C (storage)
Humidity 10% - 90% non condensing



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