Putting Pictures to Work™ SNELL & WILCOX™

KUDOS+PLUS

KUDOS PLUS CVR400D SDI & Composite Standards Converter

Broadcast quality standards converter and synchronizer

The **CVR400D** is a multi-standard broadcast quality standards converter, synchronizer and timebase corrector. With 12-bit sampling and capable of handling SDI, analog composite and Y/C signals, the CVR400D is a powerful and versatile unit. Standards conversion between 525 (NTSC) and 625 (PAL) line standards employs a powerful 20 point, 4 field, 5 line interpolation aperture to give smooth motion and maximum vertical resolution.

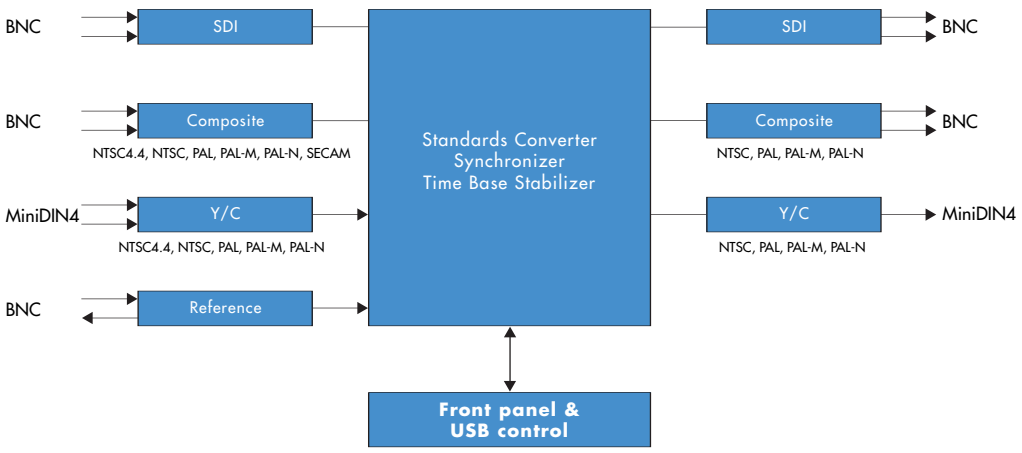
Features

- Standards Converter
- Synchronization & timebase stabilization
- 20 point vertical-temporal aperture
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs N4.43, NTSC, NTSC-J, PAL, PAL-M, PAL-N, SECAM with automatic input detection
- Outputs NTSC, NTSC-J, PAL, PAL-M, PAL-N
- Unique 'Floating mode'* for no lip-sync error
- Composite inputs tolerant to noise & errors
- Video gain, black level, chroma gain, NTSC hue
- Format conversion
- USB Remote control
- Compact ½ rack width with rack mount kit

Applications

- Universal Analog / Digital interface
- Satellite down-link & radio links
- Ingest / PC capture pre-processing
- Duplication
- VHS dubbing

CVR400D Standards Converter



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Full Product List

Base Model
Kudos Plus CVR400D multi-standard standards converter, synchronizer and timebase stabilizer with SDI and analog composite and YC interfaces, with 12-bit sampling and 10-bit processing. (3598401)

Base Model
Kudos Plus CVR400D as above, with rack mount kit (3598401-RM)
Option
Rack mount Kit to mount one or two units in a 19" rack. (INSY-MNT-KIT)

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Inputs and Outputs

Video Input

2 x SDI	525/625 line with automatic detection
2 x Composite	27 MHz, 12-bit sampling N4.43, NTSC, NTSC-J, PAL, PAL-M, PAL-N and SECAM with automatic detection
1 x YC (MiniDIN4)	27 MHz, 12-bit sampling N4.43, NTSC, PAL, PAL-M, PAL-N with automatic detection
Reference	Composite or Y (BNC loop-through)

Video Output

2 x SDI	525/625 line
2 x Composite	27 MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, PAL, PAL-M, PAL-N
1 x YC (MiniDIN4)	27 MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, PAL, PAL-M, PAL-N
Remote control	USB

Control Features

Input Select	SDI A,B; Composite A, B; YC
Input Standard NTSC	NTSC, NTSC-J
Composite Output	NTSC, NTSC-J, PAL, PAL-M, PAL-N
Freeze	Freezes next frame (sync mode)
Field Freeze	Freezes next field (sync mode)
Luminance Gain	Preset; ±6 dB
Chrominance Gain	Preset; ±6 dB
Black Level	Preset; ±100 mV
NTSC Hue	Preset; ±30°
Genlock Phase	Preset; ±1 line
Genlock Mode	Lock to reference; Lock to input (stabilized) - if same line standard; Free-run
Output Pattern	Black; Colour Bars
Default Output	When input is lost: go to black; go to colour bars
Decoder / Encoder	AGC, ACC, comb, pedestal, DNR, CTI

Indication / Monitoring

Input Standard	Present; Standard
Reference	Present; Error (Error indicated if the reference is not the same line standard as the input)
Power	Standby

System Parameters

Processing	≥10 bit
Conversion Aperture	4 field / 5 line
SDI Input Switch	Tolerant to SMPTE RP168 vertical interval switch
Vertical Interval	All luminance data passed when input & output are the same standard
Reference lock range	Greater than ±80 ppm

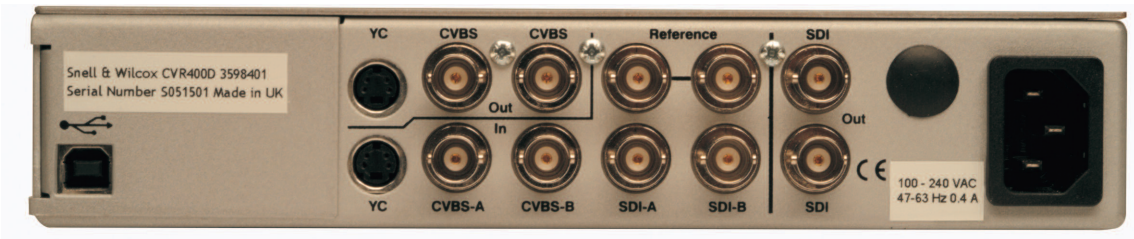
Signal Delays

Input lock mode	CVBS 525 to 525, 625 to 625 200 µs
Float mode	CVBS 525 to 525, 625 to 625 950 µs
Any input	625 to 525 (independent of Genlock) 70 ms
Any input	525 to 625 (independent of Genlock) 70 ms

Mechanical

Dimensions	1/2 1 RU rack (44 mm x 220 mm x 250 mm)
Temperature	0 °C to 35 °C operating -20 °C to +70 °C storage

*Floating Mode - Without a reference the output will either free-run or lock to a stabilized input sync if operating in synchronize mode. In this stabilized or 'floating mode' the output will always follow shortly after the input, so preventing lip-sync errors and frame drop/repeat. The inputs are highly tolerant to unstable and noisy sources, while the synchronizer always creates correctly aligned images, even during sync disturbances and asynchronous input switches.



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