

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.

The Kudos Plus CVR400D has a DC input for redundant PSU capability and is provided in a compact half rack width housing with remote control capability via Ethernet.

Kudos Plus CVR400D

SDI & Composite Standards Converter & Synchronizer



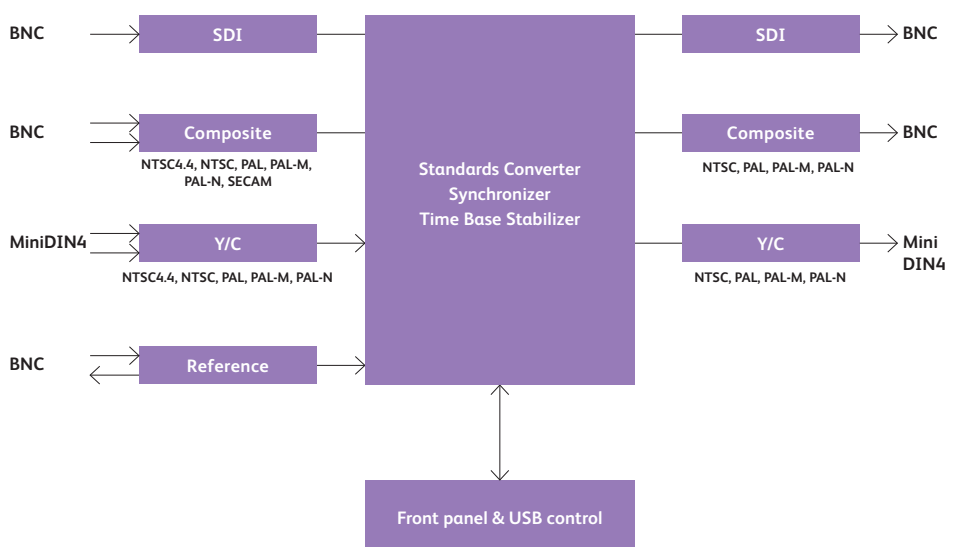
Features

- Standards converter
- Synchronization & timebase stabilization
- 20 point vertical-temporal aperture
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs NTSC, N4.43, PAL, PAL-M, PAL-N, SECAM with automatic input detection
- Outputs NTSC, NTSC-J, PAL, PAL-M, PAL-N
- Unique 'Floating Mode'* for nolip-sync error
- Composite inputs tolerant to noise and errors
- Video gain, black level, chroma gain, NTSC hue

- Format conversion
- USB remote control
- Compact 1/2 rack width with rack mount kit
- Optional external PSU for redundancy

Applications

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



CVR400D Standards Converter

Full Product List

Base Model
Kudos Plus CVR400D
(3598401)

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

Option

Rack Mount Kit
(INSY-MNT-KIT)

To mount one or two units in a 19" rack.

Redundant PSU
(INSY-PSU-EXT)

External PSU, provides redundant PSU operation.

Company policy is one of continuous product improvement. Specifications are therefore provisional and subject to change without notice. All other trademarks mentioned herein are duly acknowledged.

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Technical Specification

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 USB		
Remote control			
Control Features			
Input select	SDI A,B; Composite A, B; YC		
Input standards	NTSC, NTSC-J		
Composite output	NTSC, NTSC-J, PAL, PAL-M, PAL-N		
Frame 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; $\pm 30^\circ$		
Genlock phase	Preset; ± 1 line		
Genlock mode	Lock to reference; Lock to input (stabilized); Free-run		
Output pattern	Black; Color Bars		
Default output	When input is lost: go to black; go to color bars		
Decoder/encoder	ARC, ACC, comb, pedestal, DNR, CTI		
Indication/Monitoring			
Input standard Reference	Present; Standard 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 μ s		
Float mode	CVBS 525 to 525, 625 to 625 950 μ s		
Any input	625 to 525 (independent of Genlock) 70 ms		
Any input	525 to 625 (independent of Genlock) 70 ms		
Power			
Input voltage range (Primary)	100-240 VAC, 47-63Hz 0.4a via three pin IEC power socket		
Input voltage range (Secondary)	12 DC @ 1.5A via 2.1mm ring lock jack		
Mechanical			
Dimensions	$\frac{1}{2}$ 1RU rack (44x220x250mm)		
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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