

The CVR600UDV is a multi-standard broadcast quality 12-bit sampling, 10-bit processing standards converter, synchronizer, aspect ratio converter, noise reducer and time base stabilizer with SDI, DV, composite and YC interfaces. Standards conversion between 525 and 625 line standards (NTSC/PAL) employs a powerful 20 point, 4-field, 5-line interpolation aperture to give smooth motion and maximum vertical resolution. Embedded audio is processed as well as providing unbalanced AES audio interfaces.

The Kudos Plus CVR600UDV 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 CVR600UDV

### SDI, DV & Composite Standards Converter & Synchronizer with AES & Embedded Audio



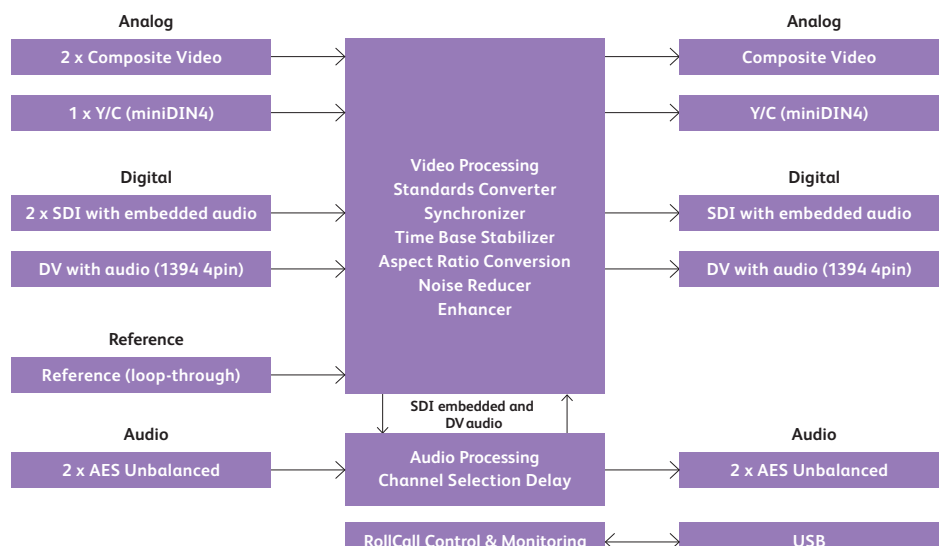
#### Features

- Standards converter & aspect ratio converter
- Synchronization & time base stabilization
- ARC with presets and size controls
- Adaptive recursive noise reduction with automatic noise level detection
- 20 point vertical-temporal aperture
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M, SECAM with automatic input detection
- Outputs PAL, NTSC, NTSC-J, PAL-N, PAL-M
- 4 channel (2 pair) embedded audio processing
- Seamless PCM audio tracking delay with manual offset – up to 2.5s
- Pass through for all HANC/VANC data in synchronize mode

- Options for balanced / unbalanced AES and balanced analog interfaces
- Unique genlock 'Floating Mode'\*
- Composite inputs tolerant to noise & errors
- Video gain, black level, chroma gain, NTSC hue
- RollCall compatible via USB link
- Compact ½ rack width with optional rack mount kit. Low power (no fan)
- Optional external PSU for redundancy

#### Applications

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



CVR600UDV SDI, DV & Composite Standards Converter

## Full Product List

### Base Model Kudos Plus CVR600UDV (3598407)

The CVR600UDV is a multi-standard broadcast quality synchronizer, noise reducer and time base stabilizer with SDI, DV, composite and YC interfaces, 12 bit sampling and 10 bit processing featuring embedded and unbalanced AES audio.

### Option Rack mount kit (INSY-MNT-KIT)

Rack mount kit to mount one or two units in a 19" rack.

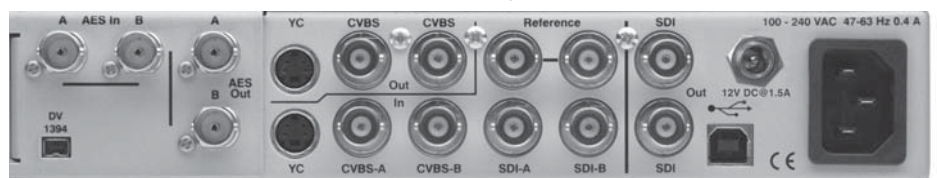
### Redundant PSU (INSY-PSU-EXT)

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.

## Technical Specification

<b>Video Input</b>									
2 x SDI	525/625 line with automatic detection(BNC)							Luminance gain	Preset; ± 6dB
2 x Composite	27MHz, 12-bit sampling PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M, SECAM with automatic detection(BNC)							Chrominance gain	Preset; ± 6dB
1 x YC	27MHz, 12-bit sampling PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M with automatic detection (Mini DIN4)							Black level	Preset; ± 100mV
Reference	Composite or Y (BNC loop-through)							NTSC hue	Preset; ± 30 degrees
								Genlock phase	Preset; approx. ±1 line
								Genlock mode	Lock to reference; Lock to input; Float (stabilized) – if same line standard; Free-run
<b>Video Output</b>								Output pattern	Black; Color Bars
2 x SDI	525/625 line(BNC)							Default output	When input is lost; go to black; go to color bars
2 x Composite	27MHz, 12-bit D to A. Output Formats PAL, NTSC, NTSC-J, PAL-N, PAL-M(BNC)							Decoder / Encoder	AGC, ACC, comb, DNR, CTI
1 x YC	27MHz, 12-bit D to A. Output Formats PAL, NTSC, NTSC-J, PAL-N, PAL-M (Mini DIN4)							DV features	Audio sample rate; AVC (play/record/stop/forward/rewind)
<b>Video Input/Output</b>									
1 x DV	4 pin DV connector (will not simultaneously decode and encode) with 32, 44.1 or 48kHz audio – one pair							<b>Indication/Monitoring</b>	
								Input standard	Present; Standard
<b>Audio Options</b>								Reference	Present; Error (Error indicated if the reference is not the same line standard as the input)
2 x AES input	Unbalanced (BNC) 32-96kHz PCM audio							Power	Standby
2 x AES output	Unbalanced (BNC) 48kHz PCM audio							<b>RollCall</b>	
Remote control	RollCall via USB link to a PC							All Control features available from RollCall via PC USBshare application.	
<b>Control Features</b>								Indication/monitoring parameters are available for Logging and Rolltrack.	
Input select	SDI A,B; Composite A, B; YC							<b>System Parameters</b>	
Output standard	525; 625							Processing	≥10 bit
Audio source (1)	SDI pair 1-8; External 1-2							Conversion aperture	4 field / 5 line
Audio source (2)	SDI pair 1-8; External 1-2							SDI input switch	Tolerant to SMPTE RP168 vertical interval switch.
Audio destination	SDI group 1-4							SDI HANC data	All data passed when input & output are the same standard, except data group being embedded
DV audio	Encode from processed pair 1-2							Vertical interval	All luminance data passed when input & output are the same standard
Add audio delay	0ms to +2.5s							Reference lock range	Greater than ±80ppm
Analog audio level	+12 to +24dBu (in / out)							<b>Power</b>	
Noise reduction	Y;C (Off; 1; 2; 3; Max)							Input Voltage Range (Primary)	100-240 VAC, 47-63Hz 0.4a via three pin IEC power socket
Split screen	Off/On (view noise reduction)							Input Voltage Range (Secondary)	12 DC @ 1.5A via 2.1mm ring lock jack
Vertical enhance	Off; 1; 2; 3 (max)							<b>Mechanical</b>	
Horizontal enhance	-2; -1; 0; 1; 2; 3 (max)							Dimensions	½ 1RU rack (44x220x250mm)
ARC enable	Off/On							Temperature	0°C to 35 °C operating -20 °C to +70 °C storage
ARC H size	50% to 200% (0.5% steps)							<b>*Floating Mode</b>	
ARC V size	50% to 200% (0.5% steps)							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.	
ARC H pan	+360 to -360 input pixels								
ARC V tilt	+150 to -150 input field lines								
ARC presets	Normal; 8 fixed presets								
Input standard	NTSC, NTSC-J								
Composite output	PAL, NTSC, NTSC-J, PAL-N, PAL-M								
Freeze	Freezes next frame(sync mode)								
Field freeze	Freezes next field								



KP12 v3