

CVR600ADV SDI, DV & Composite Standards Converter

Broadcast quality standards converter and synchronizer



The **CVR600ADV** 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 analog audio interfaces

Full Product List

Base Model

Kudos Plus CVR600ADV (3598405)

The CVR600ADV 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 analog audio

Base Model

Kudos Plus CVR600ADV (3598405-RM)

As above, with rack mount kit.

Option

Rack mount kit (INSY-MNT-KIT)

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

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Features

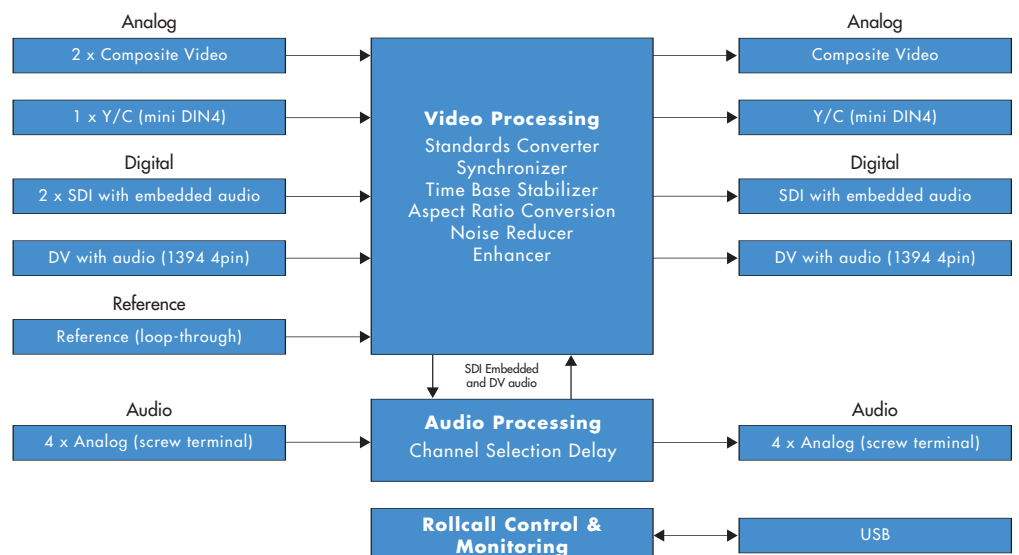
- Standards Converter & Aspect ratio converter
- Synchronization & time base stabilization
- ARC with presets and size controls
- Adaptive recursive Noise Reduction with automatic noise level detection
- 20 point vertical-temporal aperture
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- 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*)

Applications

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

CVR600ADV SDI, DV & Composite Standards Converter



Inputs and Outputs

Video Input

| | |
|---------------|---|
| 2 x SDI | 525/625 line with automatic detection (BNC) |
| 2 x Composite | 27MHz, 12-bit sampling PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M, SECAM with automatic detection (BNC) |
| 1 x YC | 27MHz, 12-bit sampling PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M with automatic detection (Mini DIN4) |
| Reference | Composite or Y (BNC loop-through) |

Video Output

| | |
|---------------|--|
| 2 x SDI | 525/625 line (BNC) |
| 2 x Composite | 27MHz, 12-bit D to A. Output Formats PAL, NTSC, NTSC-J, PAL-N, PAL-M (BNC) |
| 1 x YC | 27MHz, 12-bit D to A. Output Formats PAL, NTSC, NTSC-J, PAL-N, PAL-M (Mini DIN4) |

Video Input/Output

| | |
|--------|---|
| 1 x DV | 4 pin DV connector. (will not simultaneously decode and encode) with 32, 44.1 or 48kHz audio – one pair |
|--------|---|

Audio Options

| | |
|-------------------|---|
| 4 x Analog input | Balanced (2-part s crew terminal) +24 to +12dBu for 0dB FS |
| 4 x Analog output | Balanced (2-part s crew terminal) +24 to +12dBu from 0dB FS |

Remote control

RollCall via USB link to a PC

Control Features

| | |
|---------------------|---------------------------------|
| Input Select | SDI A,B; DV; Composite A, B; YC |
| Output Standard | 525; 625 |
| Audio Source (1) | SDI pair 1-8; DV; External 1-2 |
| Audio Source (2) | SDI pair 1-8; DV; External 1-2 |
| Audio Destination | SDI group 1-4 |
| DV Audio Encode | From processed pair 1-2 |
| Add Audio Delay | 0ms to +2.5s |
| Analog Audio Level | +12 to +24dBu (in / out) |
| Noise Reduction | Y;C (Off; 1; 2; 3; Max) |
| Split Screen | Off/On (view noise reduction) |
| Vertical Enhance | Off; 1; 2; 3 (max) |
| Horizontal Enhance | -2; -1; 0; 1; 2; 3 (max) |
| ARC Enable | Off/On |
| ARC H Size | 50% to 200% (0.5% steps) |
| ARC V Size | 50% to 200% (0.5% steps) |
| 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, NTSC-J |
| Composite Output | PAL, NTSC, NTSC-J, PAL-N, PALM |
| Freeze | Freezes next frame (sync mode) |

| | |
|-------------------|--|
| Field Freeze | Freezes next field |
| Luminance Gain | Preset; ± 6dB |
| Chrominance Gain | Preset; ± 6dB |
| Black Level | Preset; ± 100mV |
| 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 |
| Output Pattern | Black; Color Bars |
| Default Output | When input is lost; go to black; go to color bars |
| Decoder / Encoder | AGC, ACC, comb, DNR, CTI |
| DV features | Audio sample rate; AVC (play/record/stop/forward/rewind) |

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 |

Rollcall

All Control features available from rollcall via PC USBshare application. Indication/monitoring parameters are available for Logging and Rolltrack

System Parameters

| | |
|----------------------|---|
| Processing | ≥10 bit |
| Conversion Aperture | 4 field / 5 line |
| SDI Input Switch | Tolerant to SMPTE RP168 vertical interval switch. |
| SDI HANC Data | All data passed when input & output are the same standard, except data group being embedded |
| Vertical Interval | All luminance data passed when input & output are the same standard |
| Reference Lock Range | Greater than ±80ppm |
| Analog Audio ADC | 24 bit; THD better than <0.004% |

Mechanical

| | |
|-------------|--|
| Dimensions | ½ 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.

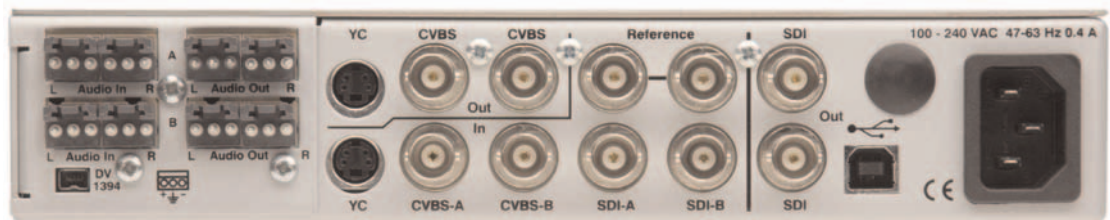
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