

## HD/SD-SDI RGB Colour Corrector with YCbCr Video Proc and Frame Synchronisation

The CC084 is an RGB Corrector with YCbCr proc features and a frame synchroniser. It can process HD/SD SDI signals in all formats.

The RGB processing controls provide full offset, gain and gamma adjustments. The YCbCr proc controls provide lift, gain, saturation, phase, white clip (hard and soft), black clip, and colour saturation clip. Parameter updates are very smooth and responsive, providing a completely real time feel.

Even though the card provides extensive control of the signal from the RGB perspective, it will continue to pass those signals that fall outside of the RGB gamut.

Pluge and YCbCr limit ramp signals pass without modification.

When the YCbCr saturation clip is activated, the saturation limiting operation will not affect the colour phase.

The frame synchroniser can sync the video signal to any compatible reference, and provides full timing offsets.

The frame sync minimum delay is only three lines, and can be disabled for operation in synchronous environments.

The CC084 can be controlled from the card edge menu, the Dashboard software, the CP-900 control panel, or the SNMP agent software in the frame.

## Features

- HD/SD frame synchroniser
- Passes all ancillary data, including embedded audio
- Full RGB colour corrector (offset, gain, gamma)
- Extended YCbCr proc controls with white, black, and saturation clipping
- Saturation clip does not cause hue (phase) shift
- Passes entire YCbCr gamut in unity gain configuration
- Colour correction can be applied to entire frame or a sub region
- One button bypass of colour correction for comparison purposes
- Parameter updates are smooth and responsive, excellent for on-air manipulation
- On-card storage of 16 presets
- Local control from full card edge menu with character display
- Remote control/monitoring via Dashboard software or CP-900 remote control panel
- Five year warranty

## Specifications

**Power Consumption:** 7.0 Watts

**HD/SD-SDI Inputs:** One Input equalisation to 100 meters of Belden 1694 Auto sensing: Yes

**HD/SD-SDI Reclocked Outputs:** Four

**HD/SD-SDI Processed Outputs:** Four

**Formats supported:**

1080i @ 60Hz, 59.94Hz, 50Hz  
1080p @ 30Hz, 29.97Hz, 24Hz, 23.98Hz  
1080psf @ 24Hz, 23.98Hz  
720p @ 60Hz, 59.94Hz, 50Hz, 30Hz, 29.97Hz, 24Hz, 23.98Hz  
625i @ 50Hz  
525i @ 59.94Hz

**Embedded Audio:**

Passes through card: Yes Compensation for asynchronous inputs (drops and dupes): No

**Frame Sync Delay:**

Minimum: 3 lines  
Maximum: 3 lines + 1 Frame  
Delay with FS disabled: < 200 samples

**Additional Frames of Delay:**

HD: 6  
SD: 13

**RGB colour Correction:**

RGB Offset Control (one per primary) : -100% to 100% in 0.1% steps  
RGB Gain Control (one per primary) : 0% to 200% in 0.1% steps  
RGB Gamma Control (one per primary) :

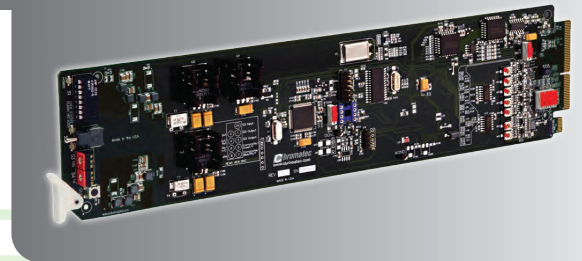
0.125 to 8.0 in 0.001 steps  
Controls from three primaries can be ganged together so all adjust at one time.

**YCbCr Proc Amp:**

Y Offset (Lift): -100% to 100% in 0.1% steps  
Y Gain: 0% to 200% in 0.1% steps  
C Gain (Saturation): 0% to 200% in 0.1% steps  
Video Gain (affects Y and C): 0% to 200% in 0.1% steps  
colour Phase: -180 degrees to + 180 degrees in 0.1 degree steps

**YCbCr Clipper:**

Y Black hard clip (values limited at or above): -7.5% to 50% in 0.1% steps  
Y White hard clip (values limited at or below): 50% to 107.5% in 0.1% steps  
Y White soft clip (values rolled off at): 50% to 107.5% in 0.1% steps  
CbCr Saturation clip (values limited at or below): 50% to 107.5% in 0.1% steps



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