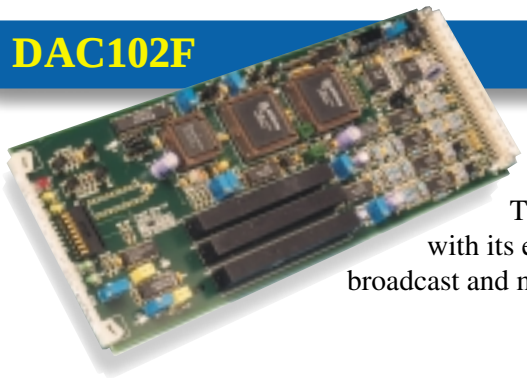
Crystal Vision

SDI TO COMPONENT CONVERTERS

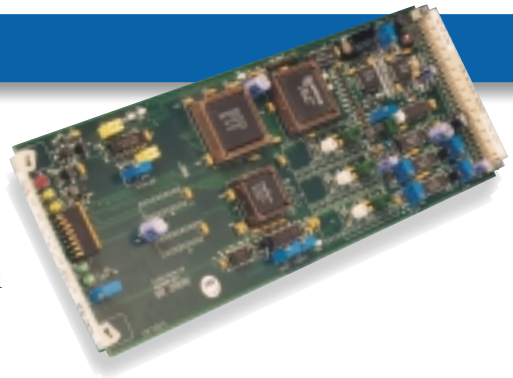
Crystal Vision offers three digital to analogue converters which are ideal for linking serial digital with analogue component areas in a broadcast environment. All have selectable analogue horizontal blanking, while signals in the vertical interval can be passed or blanked. Setup on the Y output in 525 line can be selected, while Betacam chrominance levels are link selectable. Controllable by board edge, all three converters have an input present LED and standard indication LEDs.

DAC102F



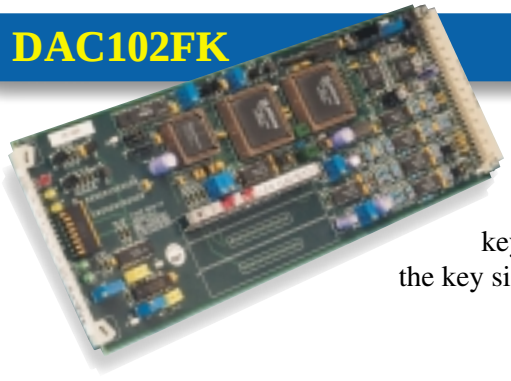
The DAC102F is a 10 bit digital to analogue converter which gives out RGBS or YUVS plus a reclocked SDI loop-through. The DAC102F fully meets the ITU 601 specification for filtering and, with its extremely flat frequency response, should be used for high quality broadcast and multi-pass applications.

DAC102N

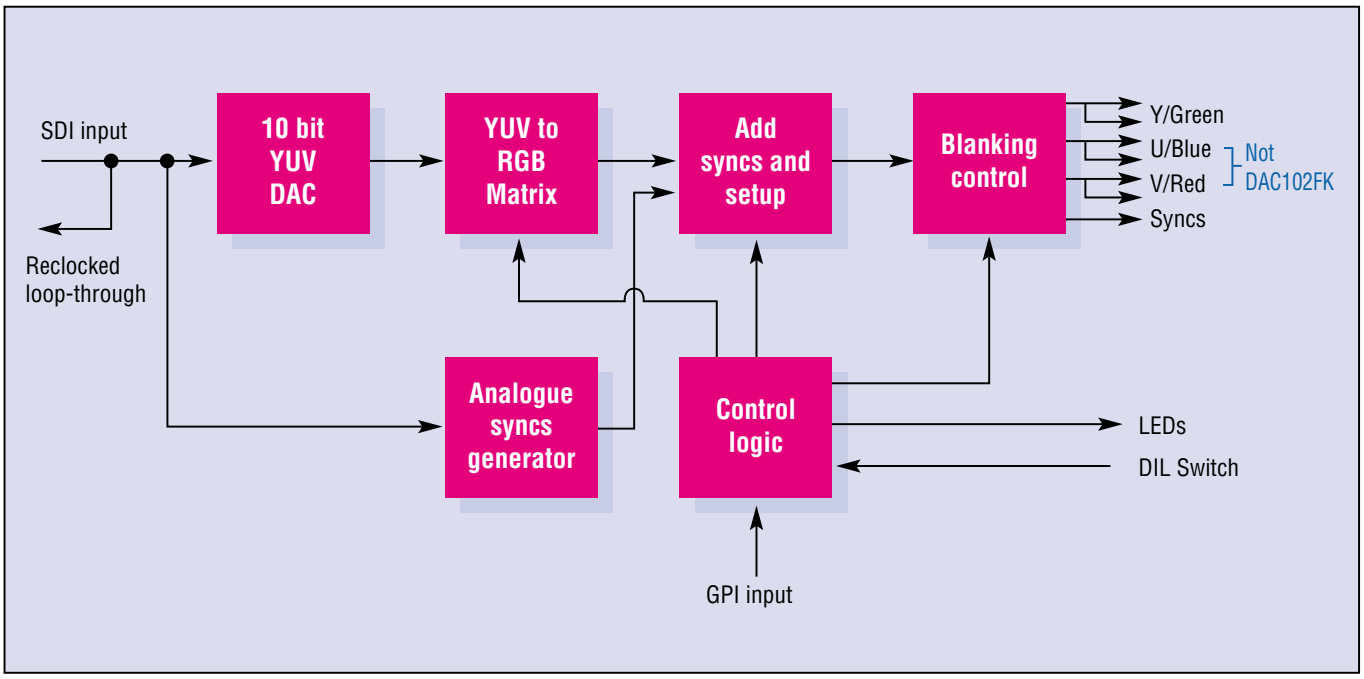


The DAC102N is a 10 bit digital to analogue converter which generates RGBS or YUVS plus a reclocked SDI loop-through. The DAC102N nearly meets the ITU 601 specification for filtering and is particularly suitable for monitoring and single-pass applications where slightly reduced chroma bandwidth is not a problem. It is ideal for transfer to analogue component tape machines such as Betacam.

DAC102FK



The DAC102FK is similar to the DAC102F but only has the Y output, therefore converting serial digital to Y. It is ideal for the conversion of digital key signals and is typically used in keying applications to attach to an analogue keying device or to record the key signal.



SPECIFICATION

MECHANICAL
Standard Crystal Vision modules 266mm x 100mm
Weight: 200g
Power consumption: 6 watts

VIDEO SDI INPUT
SDI 270Mbit to EBU 3267-E & SMPTE 259M
Cable equalisation >200m Belden 8281 or equivalent
Auto or manual 625/525 line selection

OUTPUT
Reclocked SDI loop-through
Will drive >200m Belden 8281 or equivalent

ANALOGUE OUTPUTS
2 outputs each of YUV and syncs or RGB and syncs 700mV into 75ohm. (Y and Green 1 volt with syncs)
Syncs output 2 volt into 75ohm
Rear module RM01 gives 1 set of outputs on all DACs. Rear module RM02 gives 2 sets of Y and syncs outputs on DAC102FK
Selectable setup and Betacam levels

ANALOGUE PERFORMANCE
Frequency Response:
Luminance: +/- 0.1dB 0 to 5.75MHz (DAC102F and DAC102FK), +/- 0.3dB 0 to 5.5MHz (DAC102N)
Chrominance: +/- 0.1dB 0 to 2.75MHz (DAC102F), +/- 0.4dB 0 to 1.8MHz (DAC102N)
Noise: <-60dB weighted luminance or chrominance
Gain Error: <1%
RGB matrix error: <1%
Chroma/Luma delay inequality: <5ns
Blanking: To 601 specification horizontally and vertically, with selectable VBI blanking on or off. PAL lines 7 to 22, and 319 to 335 and NTSC lines 7 to 20 and 270 to 278. Selectable shaped analogue blanking from DIP switch

GPI INPUT LEVELS
Active: connect to ground
Inactive: high impedance, or 3.5 to 5 volt
Input current <500uA

GPI INPUTS
YUV/RGB output
Syncs on Y/Green on or off
Auto or manual 625/525 line select

BOARD EDGE DIL SWITCH SELECTS:
YUV/RGB output
Syncs on Y/Green on or off
Auto or manual 625/525 line select
625/525 line select when in manual mode
VBI blanked or unblanked (see above)
Setup: can add 7.5 IRE of setup on Y in 525 line only
Analogue horizontal blanking can be selected, or narrow digital blanking
Movable link on board can select Betacam levels for U and V, which gives 700mV for 75% colour bars, instead of standard 700mV for 100% bars

LED INDICATION OF:
Power supplies on board
SDI input present
SDI input lock error
625/525 input standard

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ORDERING INFORMATION

DAC102F	10 bit SDI to YUVS/RGBS D to A with full 601 specification filtering
DAC102FK	10 bit SDI to Y and syncs D to A with full 601 specification filtering
DAC102N	10 bit SDI to YUVS/RGBS D to A with near 601 specification filtering
FRxxx	Any Crystal Vision interface frame (some require rear modules)
RM01	Rear module for 12 boards in FR2AV frame. 1 SDI loop-through and 1 YUVS/RGBS output
RM02	Rear module for 9 boards in FR2AV frame for use with DAC102FK. Gives 1 SDI loop-through and 2 Y and syncs outputs