Crystal Vision

ALLDAC

Encoding converter and distribution amplifier

ALLDAC combines all the features you could possibly want for a digital to analogue converter in one affordable product.

Combining a 12 bit broadcast D to A converter and an analogue and SDI distribution amplifier, ALLDAC has been designed to convert SDI into combinations of analogue and digital and to do so in an extremely flexible way.

It's the variety of outputs that makes ALLDAC ideal for so many different uses. The wide range of applications could include distributing SDI signals, monitoring in RGB or composite on plasmas or large displays, driving waveform monitors and vector scopes, high quality recording from an SDI source or analogue transmissions.

- 12 bit broadcast encoding converter and distribution amplifier
- Converts SDI into flexible combinations of analogue and SDI distribution
- Up to eight analogue outputs, configurable as mixtures of composite, Y/C, YUV or RGB
- Ideal for use as a DA, with up to four reclocked SDI outputs
- Excellent encoding performance
- Ideal for all monitoring applications and for broadcast applications where you do not need to time the output sub-carrier to an external reference and a TBC is not required
- Space-saving: 100mm x 266mm module allows 12 ALLDAC in 2U (six in 1U and two in desk top box)
- Flexible control, including web browser

CHOOSE YOUR OUTPUTS

The analogue outputs can be configured as a mixture of composite, Y/C, YUV and RGB by board edge or remote control, while the number of reclocked SDI outputs is selected by adjusting on-board links.

ALLDAC can be used with three different frame rear modules – the RM01, RM02 and RM18 – providing up to eight analogue and four reclocked SDI outputs and allowing you to choose exactly what you need for your application.

With ALLDAC what you get is entirely up to you, with eleven possible different output combinations available when using the RM18.

EXCELLENT PERFORMANCE

ALLDAC has high quality 12 bit D to As with four times oversampling, and offers Crystal Vision's best encoding performance yet, with enhanced analogue accuracy and frequency response.

USEFUL FEATURES

Data in the vertical blanking interval is always passed to the analogue composite output, while setup on the Y output can be selected in 525 line applications, allowing ALLDAC to output the US (NTSC-M) and Japanese (NTSC-J) standards.

The ability to select NTSC Betacam chrominance levels for YUV outputs – giving 700mV for 75% colour bars instead of the standard 700mV for 100% bars – increases the range of systems with which it can be used.

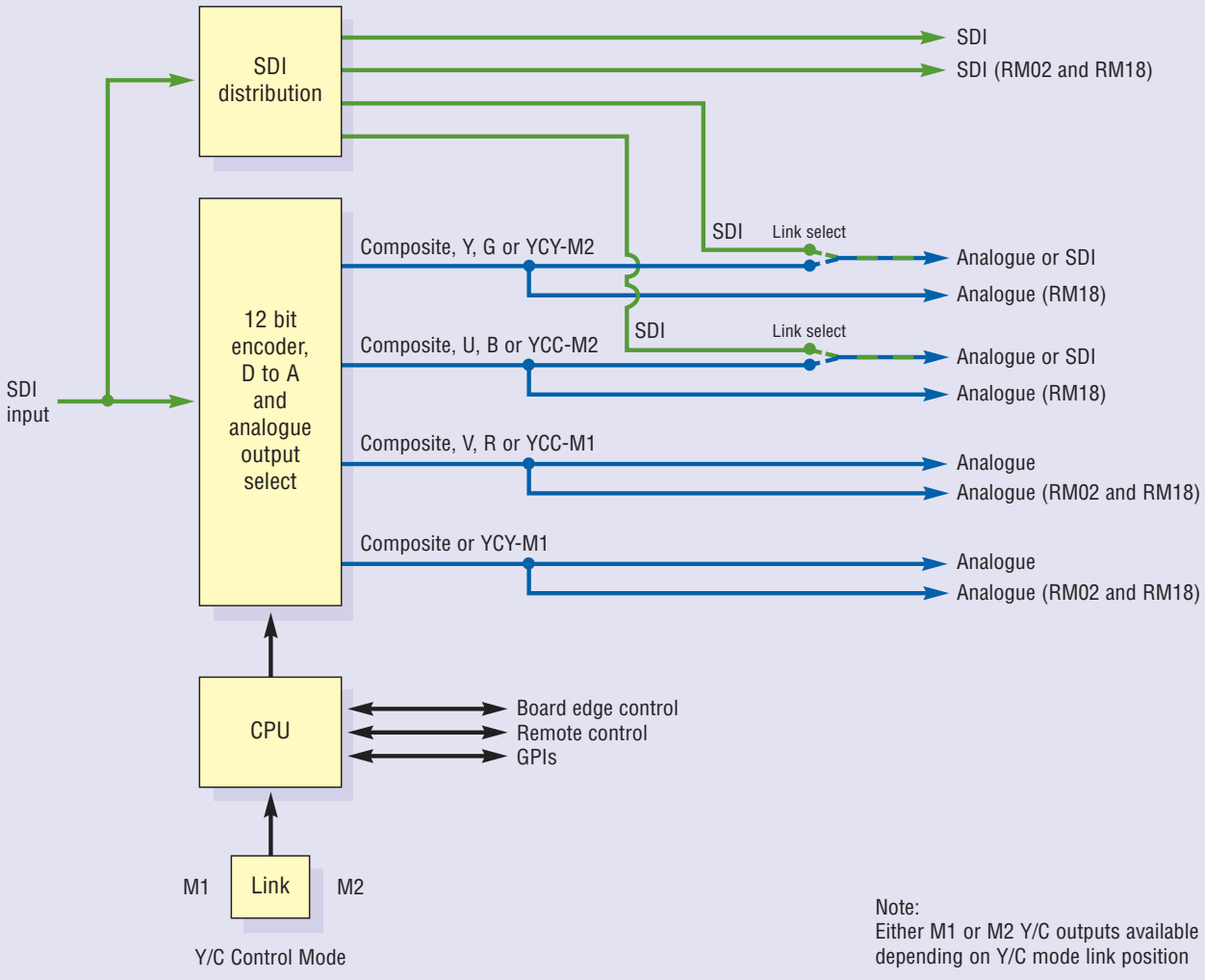
SAVE RACK SPACE

Housed in the standard Indigo frames, the 100mm x 266mm module can be easily integrated with any other product from the Indigo range, and saves you space by allowing 12 boards in 2U, six in 1U or two in a desk top box.

FLEXIBLE CONTROL

Control is as flexible as ALLDAC itself - with options including an intuitive board edge interface, an integrated control panel on the AE frames, the VisionPanel remote control panel, SNMP, the Statesman Lite PC software or the VisionWeb web browser control.

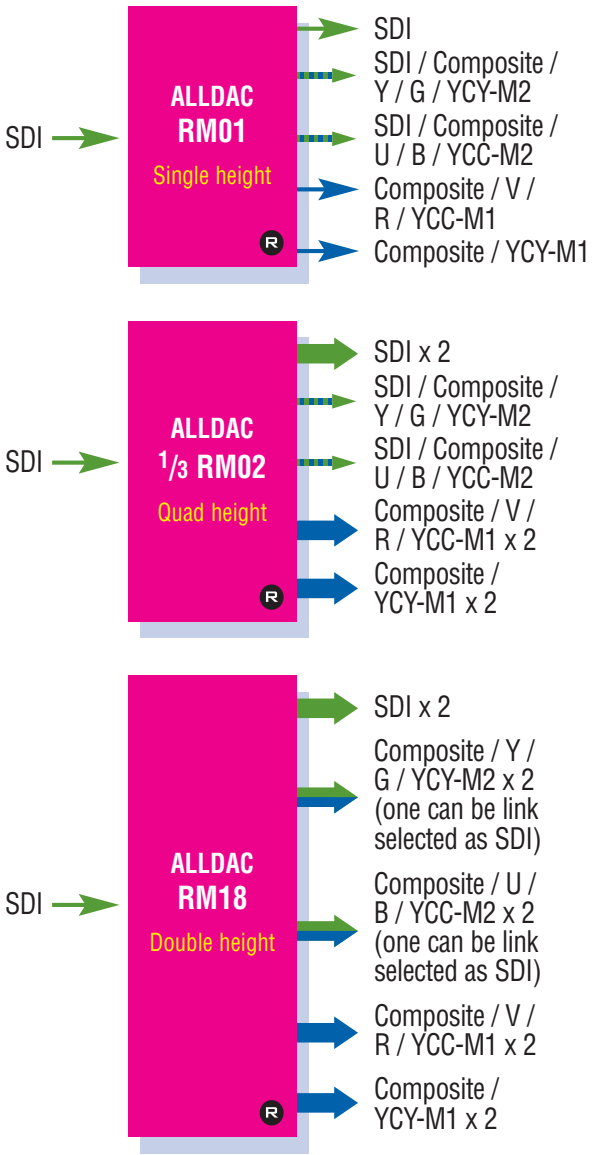
THE INPUTS AND OUTPUTS

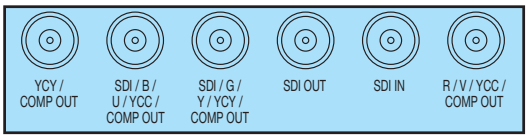


OUTPUT COMBINATIONS

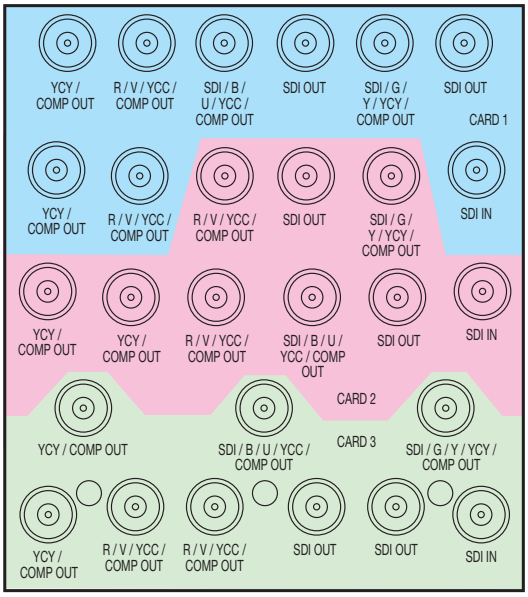
RM01 combinations			RM02 combinations			RM18 combinations		
SDI	Composite x 4		SDI x 2	Composite x 6		SDI x 2	Composite x 8	
SDI x 2	Composite x 3		SDI x 3	Composite x 5		SDI x 3	Composite x 7	
SDI x 3	Composite x 2		SDI x 4	Composite x 4		SDI x 4	Composite x 6	
SDI	Composite x 2	Y/C	SDI x 2	Composite x 4	Y/C	SDI x 4	Composite x 4	Y/C
SDI x 2	Composite	Y/C	SDI x 2	Composite x 2	Y/C x 2	SDI x 2	Composite x 4	Y/C x 2
SDI x 3		Y/C	SDI x 3	Composite	Y/C x 2	SDI x 3	Composite x 3	Y/C x 2
SDI	Composite	YUV	SDI x 4		Y/C x 2	SDI x 4	Composite x 2	Y/C x 2
SDI	Composite	RGB	SDI x 2	Composite x 2	YUV	SDI x 4	Composite x 2	YUV
			SDI x 2	Composite x 2	RGB	SDI x 4	Composite x 2	RGB
						SDI x 2	Composite x 2	YUV x 2
						SDI x 2	Composite x 2	RGB x 2

REAR MODULE CONNECTIONS

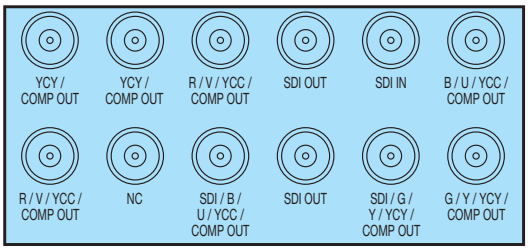




RM01



RM02



RM18

SPECIFICATION

MECHANICAL

Standard Crystal Vision module 266mm x 100mm

Weight: 150g

Power consumption: 5 Watts

VIDEO INPUT

One SDI input

270Mb/s to SMPTE 259

Cable equalisation >200m Belden 8281 or equivalent

Auto or manual 625/525 line selection

VIDEO OUTPUTS

Outputs can be configured as a mixture of composite, Y/C, YUV, RGB and reclocked SDI distribution. The final number of outputs is dependent on the frame rear module fitted:

RM01: 1 SDI, 2 analogue, 2 selectable (SDI or analogue)

RM02: 2 SDI, 4 analogue, 2 selectable (SDI or analogue)

RM18: 2 SDI, 6 analogue, 2 selectable (SDI or analogue)

Board edge push button switch selects composite / Y/C / YUV / RGB. The number of SDI outputs is selected by on board links

ALLDAC is a plug in replacement for both DDAA132 and ENDAC on all rear modules, with signals on the same connector for composite, YUV and RGB. For Y/C outputs it is necessary to select M1 link position for compatibility with DDAA132 and M2 for compatibility with ENDAC

Switchable Betacam levels on YUV output

270Mb/s to SMPTE 259

ANALOGUE PERFORMANCE

12 bit precision

Frequency response: +/-0.5dB 0 to 5.5 MHz

Differential phase: <1.50°

Differential gain: <1.5%

Signal to Noise: <-60dB

DELAY THROUGH BOARD

3us

GPI OUTPUT LEVELS

Active: connect to ground, 220 ohm current limit resistors. Pulled up to +5V through 10 kohm

GPI OUTPUTS

Input absent

LED INDICATION OF:

Power supplies on board

Betacam levels selected

Input standard

Output format

LOCAL CONTROL

Board edge push button switch selects composite / Y/C / YUV / RGB on configurable outputs. On board links configure number of SDI outputs. Separate switch selects Betacam levels (YUV only)

REMOTE MONITORING

Control from integrated control panel on AE frames and remote panel

Statesman Lite allows control from any PC on a network

VisionWeb Control is available via the web server on the frame and allows operation using a standard web browser on a PC or tablet

SNMP monitoring and control available as a frame option

Control using ASCII and JSON protocols

ORDERING INFORMATION

ALLDAC	12 bit broadcast encoding converter and distribution amplifier
Indigo 2AE	2U frame with active front panel featuring smart CPU and integrated control panel for up to 12 Crystal Vision modules
Indigo 2SE	2U frame with active front panel featuring smart CPU for up to 12 Crystal Vision modules
Indigo 1AE	1U frame with active front panel featuring smart CPU and integrated control panel for up to six Crystal Vision modules. Power supply redundancy available with Indigo 1AE-DP
Indigo 1SE	1U frame with active front panel featuring smart CPU for up to six Crystal Vision modules. Power supply redundancy available with Indigo 1SE-DP
Indigo DT	Desk top box with passive front panel for up to two Crystal Vision modules
Indigo DTSE	Desk top box with active front panel featuring smart CPU for up to two Crystal Vision modules
RM01	Single slot frame rear module. Allows maximum number of ALLDAC in frame (12 in 2U, six in 1U, two in desk top box). Gives access to one SDI output, two analogue outputs and two outputs selectable between SDI and analogue
RM02	Four slot frame rear module. One rear module used for three ALLDAC, allowing nine ALLDAC in 2U. Gives access to two SDI outputs, four analogue outputs and two outputs selectable between SDI and analogue
RM18	Two slot frame rear module. Allows six ALLDAC in 2U, three in 1U and one in desk top box. Gives access to two SDI outputs, six analogue outputs and two outputs selectable between SDI and analogue
VisionPanel	3U Ethernet remote control panel with touch screen
VisionWeb Control	VisionWeb web browser control included within frame software
Statesman Lite	PC Control System
SNMP	SNMP monitoring and control

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