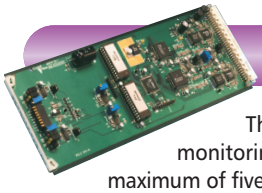
Monitoring Encoders

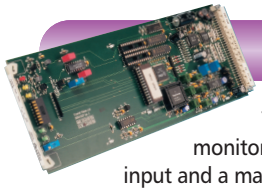
Crystal Vision offers a choice of three digital to analogue monitoring encoders to allow customers to select the exact combination of outputs and other features they require. Providing non-broadcast conversion of SDI sources to composite PAL/NTSC or Y/C, the manually-controlled encoders are ideal for driving picture monitors, waveform monitors and vector scopes and for distributing SDI signals. All have 8 bit inputs with a 9 bit digital to analogue converter to maintain the composite signal resolution, and include the flexibility of selectable blanking, continuously variable gain of +/-10% and a basic modulated ramp analogue test pattern which is useful for correct installation. The DDAA132 and DDAA132P double as a distribution amplifier by providing extra reclocked feeds of the serial digital input. These 100mm x 266mm modules are all used with the RM01, RM02 and RM18, with the rear module selection depending on the number of outputs required.



MON210

The MON210 is a dual SDI to PAL/NTSC or Y/C monitoring encoder which provides two inputs and a maximum of five composite outputs for each channel, or two Y/C pairs and one composite. Four of the outputs are link selectable between composite and Y/C, while one is a fixed composite output.

Use it for: Any multi-channel content monitoring applications requiring multiple analogue outputs where space and cost are at a premium and signal distribution is not required



DDAA132

The DDAA132 is a single SDI to PAL/NTSC or Y/C monitoring encoder and distribution amplifier. It has one input and a maximum of four analogue outputs (which can be any mixture of PAL/NTSC and Y/C pairs) and four reclocked SDI loop-throughs.

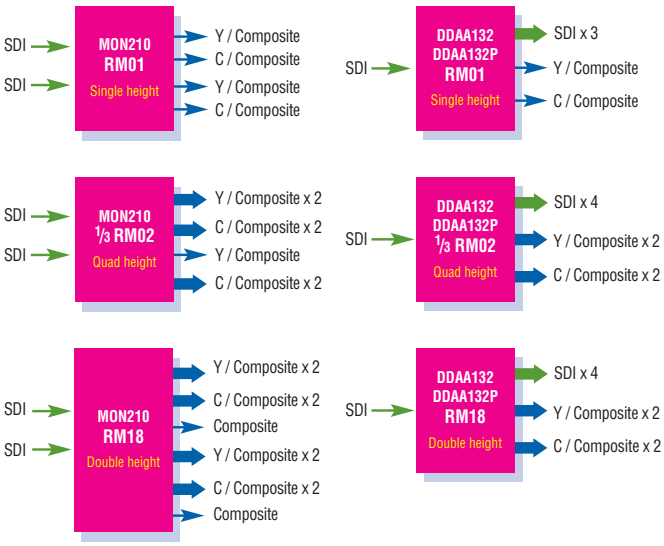
Use it for: Monitoring and distributing a feed using the same device, such us on the output of a matrix

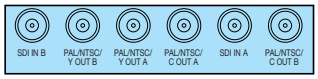
DDAA132P

Like the DDAA132, the DDAA132P is a single SDI to PAL/NTSC or Y/C monitoring encoder and distribution amplifier. It has one input and a maximum of four analogue outputs (which can be any mixture of PAL/NTSC and Y/C pairs) and four reclocked SDI loop-throughs. It includes four very useful test patterns on the analogue outputs which can be selected by board edge or GPI and which are PLUGE, Vertical edge markers, Luma/chroma ramp and EBU colour bars.

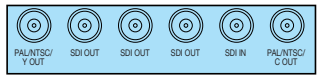
Use it for: Setting up your picture monitors using the test patterns before monitoring and distributing a feed – all on the one board

What outputs do you get?

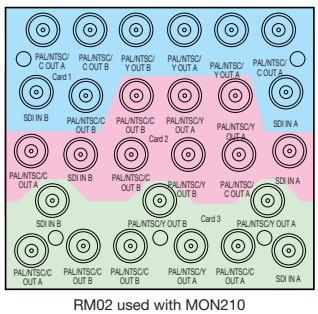




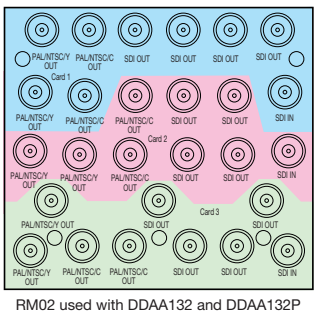
RM01 used with MON210



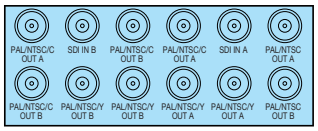
RM01 used with DDAA132 and DDAA132P



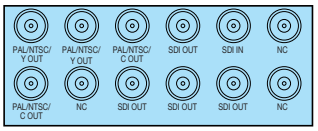
RM02 used with MON210



RM02 used with DDAA132 and DDAA132P



RM18 used with MON210



RM18 used with DDAA132 and DDAA132P

SPECIFICATION

MON210

MECHANICAL
Standard Crystal Vision module 266mm x 100mm
Weight: 170g
Power consumption: 7 Watts

VIDEO INPUTS
Two SDI inputs
270Mb/s to EBU 3267-E and SMPTE 259M
Cable equalisation >200m Belden 8281 or equivalent
Auto or manual 625/525 line selection

VIDEO OUTPUTS
Maximum of five composite outputs or two Y/C outputs per channel with RM18 frame rear module (two composite outputs or one Y/C output per channel with RM01 and four composite outputs or two Y/C outputs of the first channel and three composite outputs or one Y/C output with an additional Y of the second channel with RM02)
Most outputs are selectable between composite and Y/C using movable links, with one output fixed as composite

ANALOGUE PERFORMANCE
Frequency response: +/-0.3dB to 5MHz
Noise: <-54dB weighted luminance or chrominance
Blanking: To PAL/NTSC specification horizontally and vertically with selectable VBI blanking. PAL lines 7 to 22 and 320 to 335 and NTSC lines 10 to 20 and 273 to 282
Gain adjustment (Y, C or composite): +/-10%

TEST PATTERN
Modulated ramp analogue test pattern, selectable at board edge

GPI INPUT LEVELS
Active pull to ground, pulled up to 5V through 10 kohm

GPI OUTPUT LEVELS
Electrically: Open collector transistors 30V, 330 ohm current limit resistors. Pulled up to 5V through 10 kohm

GPI INPUTS
Four GPI inputs
625 or 525 line standard for Channels A and B (if manual select)
VBI blanked or unblanked for Channels A and B

GPI OUTPUTS
Two GPI outputs
SDI present for Channels A and B

LED INDICATION OF:
Power supplies on board
SDI input present for Channels A and B
SDI input lock error for Channels A and B
625/525 line input standard for Channels A and B

BOARD EDGE CONTROL OF:
625 or 525 line standard for Channels A and B
VBI blanked or unblanked for Channels A and B
Test pattern or serial input for Channels A and B
Setup on/off and chroma bandwidth select (NTSC only)

DDAA132 AND DDAA132P

MECHANICAL
Standard Crystal Vision modules 266mm x 100mm
Weight: 170g
Power consumption: 5 Watts

VIDEO INPUT
One SDI input
270Mb/s to EBU 3267-E and SMPTE 259M
Cable equalisation >300m Belden 8281 or equivalent
Auto or manual 625/525 line selection

VIDEO OUTPUTS
Maximum of four composite outputs or two Y/C outputs with RM02 and RM18 frame rear modules (two composite outputs or one Y/C output with RM01)
Outputs are selectable between composite and Y/C using movable links
Maximum of four SDI reclocked loop-throughs with RM02 and RM18 rear modules (three with RM01)

ANALOGUE PERFORMANCE
Frequency response: +/-0.3dB to 5MHz
Noise: <-54dB weighted luminance or chrominance
Blanking: To PAL/NTSC specification horizontally and vertically with selectable VBI blanking. PAL lines 7 to 22 and 320 to 335 and NTSC lines 10 to 20 and 273 to 282
Gain adjustment (Y, C or composite): +/-10%

TEST PATTERNS
DDAA132 and DDAA132P: Modulated ramp analogue test pattern, selectable at board edge
DDAA132P only: Four test patterns on analogue output can be selected from board edge or GPI: PLUGE, Vertical edge markers, Luma/chroma ramp and EBU colour bars. Requires valid SDI input signal from which to extract clocking information

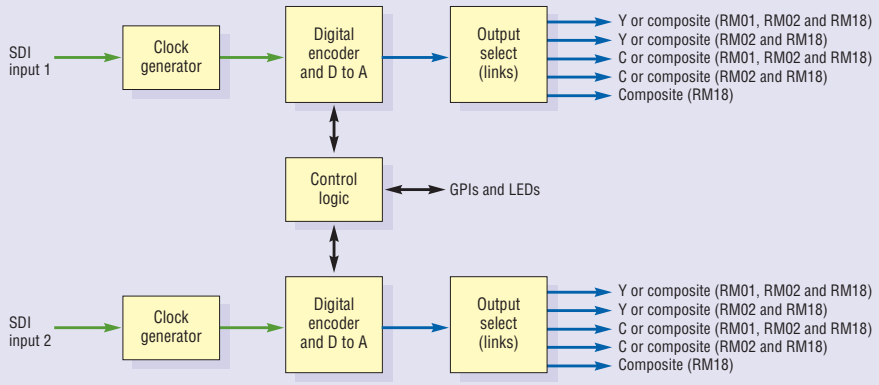
GPI INPUT LEVELS
Active pull to ground, pulled up to 5V through 10 kohm

GPI INPUTS
Six GPI inputs
625 or 525 line standard (if manual select)
VBI blanked or unblanked
Setup on/off (NTSC only)
Test pattern select (DDAA132P only)

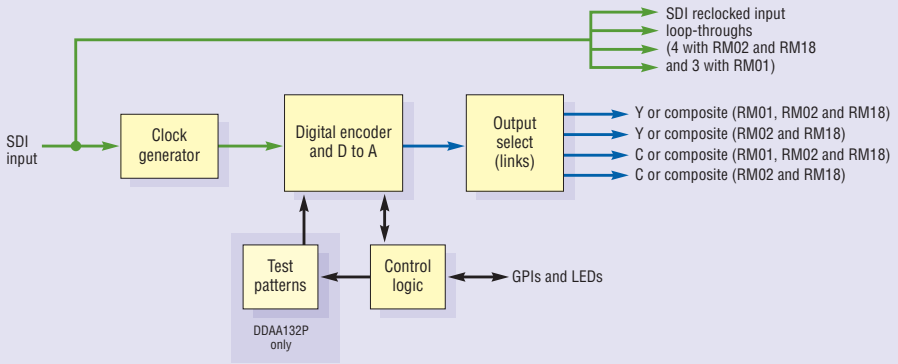
LED INDICATION OF:
Power supplies on board
SDI input present
SDI input lock error
625/525 line input standard

BOARD EDGE CONTROL OF:
625 or 525 line standard
VBI blanked or unblanked
Test patterns or serial input
Setup on/off and chroma bandwidth select (NTSC only)

MON210



DDAA132 AND DDAA132P



ORDERING INFORMATION

MON210	Dual channel SDI to composite or Y/C monitoring encoder
DDAA132	SDI to composite or Y/C monitoring encoder and DA
DDAA132P	SDI to composite or Y/C monitoring encoder and DA with four test patterns
Indigo 4	4U frame with passive front panel for up to 24 Crystal Vision modules
Indigo 4SE	4U frame with passive front panel fitted with Statesman CPU for up to 24 Crystal Vision modules
Indigo 2	2U frame with passive front panel for up to 12 Crystal Vision modules
Indigo 2AE	2U frame with active front panel for up to 12 Crystal Vision modules
Indigo 2SE	2U frame with passive front panel fitted with Statesman CPU for up to 12 Crystal Vision modules
Indigo 1	1U frame with passive front panel for up to six Crystal Vision modules. Power supply redundancy available with Indigo 1-DP
Indigo 1AE	1U frame with active front panel for up to six Crystal Vision modules. Power supply redundancy available with Indigo 1AE-DP
Indigo 1SE	1U frame with passive front panel fitted with Statesman 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 DTAE	Desk top box with active front panel for up to two Crystal Vision modules
Indigo DTSE	Desk top box with passive front panel fitted with Statesman CPU for up to two Crystal Vision modules
RM01	Single slot frame rear module. Allows maximum number of boards in frame (24 in 4U, 12 in 2U, six in 1U, two in desk top box). On MON210 gives access to two composite outputs or one Y/C output per channel. On DDAA132 and DDAA132P gives access to two composite outputs or one Y/C output, and three SDI loop-throughs
RM02	Four slot frame rear module. One rear module used for three boards, allowing 18 boards in 4U and nine in 2U. On MON210 gives access to four composite outputs or two Y/C outputs of the first channel and three composite outputs or one Y/C output with an additional Y of the second channel. On DDAA132 and DDAA132P gives access to four composite outputs or two Y/C outputs, and four SDI loop-throughs
RM18	Two slot frame rear module. Allows 12 boards in 4U, six in 2U, three in 1U and one in desk top box. On MON210 gives access to five composite outputs or two Y/C outputs per channel. On DDAA132 and DDAA132P gives access to four composite outputs or two Y/C outputs, and four SDI loop-throughs

Crystal Vision

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