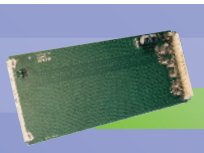
Crystal Vision

SDI/ASI DISTRIBUTION AMPLIFIERS

Crystal Vision's DDA range provides economical distribution of Standard Definition digital signals. Between them, the four boards offer the options of reclocking or non-reclocking, single or dual channel and even relay bypass protection, while a variety of frame rear modules allow flexible selection of the number of outputs required.

These distribution amplifiers are ideal for use in a variety of applications, including master control rooms, studios, edit suites and OB vehicles. The space-saving 100mm x 266mm modules fit in the standard frames – available in 4U, 2U, 1U and desk top box sizes – with up to 12 boards housed in just 2U of rack space.

Crystal Vision offers other DAs suitable for the distribution of SDI, namely the intelligent Smart DA with its ability to monitor video and embedded audio, and the 3GDA range which can also be used for the distribution of HD and 3Gb/s video.

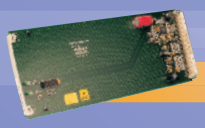


DDA108

The DDA108 is an SDI distribution amplifier designed to create multiple reclocked outputs from a digital signal. Used by those whose specifications require reclocking to remove high frequency jitter from a signal, it has high quality equalisation for up to 250m cable lengths and LED indication of input present. The RM01 rear module gives five outputs while the maximum number of outputs – eight – can be accessed by using the RM02 or RM18.

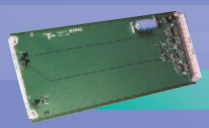
DDA108A

The DDA108A is an SDI/ASI distribution amplifier which creates multiple non-reclocked positive polarity outputs from a digital signal. It is ideal for systems that have a combination of SDI and DVB-ASI video signals, or alternatively where reclocking is not considered a requirement. It offers excellent cable equalisation and has GPI indication of input absent and LED indication of input present. The RM01 frame rear module gives five outputs while the RM02 and RM18 allow the maximum of eight.



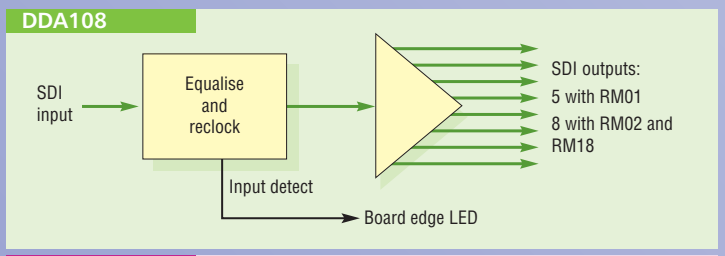
DDA108A-BP

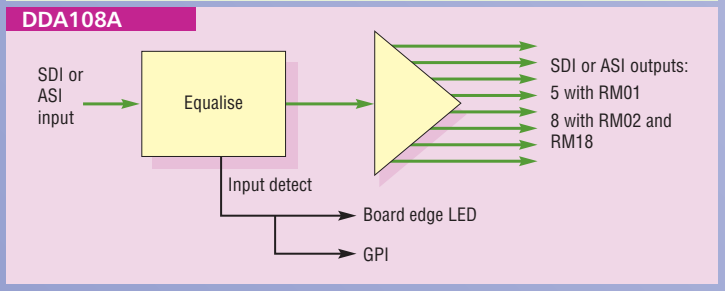
The DDA108A-BP is Crystal Vision's distribution amplifier with optional relay bypass protection. It creates multiple non-reclocked positive polarity outputs from an SDI or ASI signal, and offers excellent cable equalisation, GPI indication of input absent and LED indication of input present. Relay bypass protection is available by using the RM38 frame rear module: it will preserve a signal path in the event of power failure or board removal, preventing signal loss by mechanically connecting the input of the DDA108A-BP to output 1 whenever the supply to the RM38 is interrupted. The RM01 and RM38 rear modules give five outputs while the RM02 and RM18 give the maximum of eight.

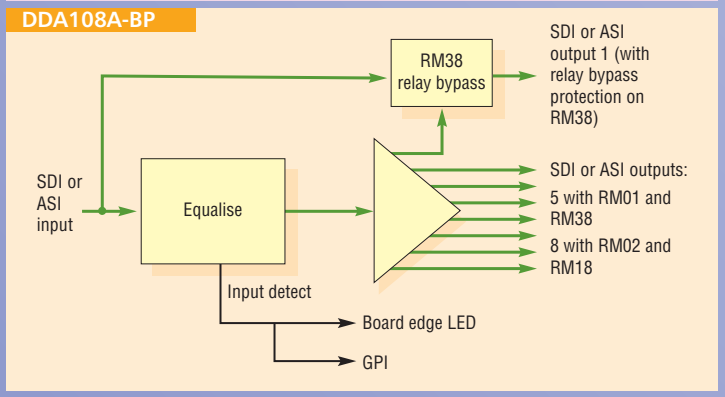


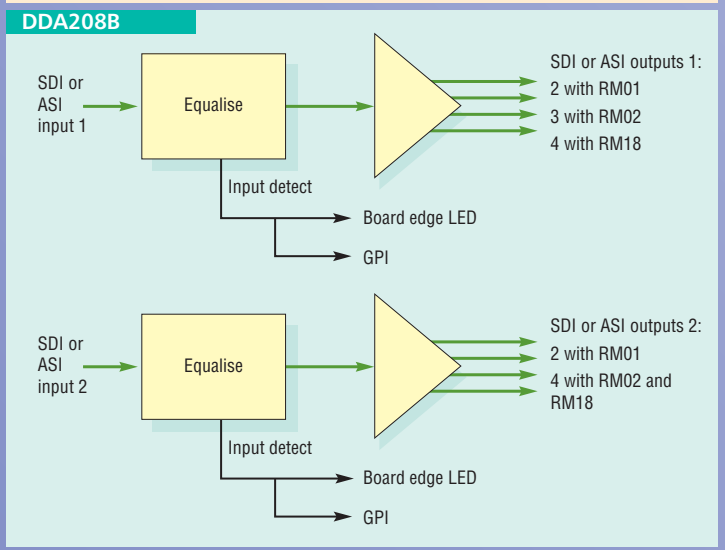
DDA208B

The DDA208B is Crystal Vision's dual SDI/ASI distribution amplifier which creates multiple non-reclocked outputs from a digital signal. It offers up to four outputs per channel, with all outputs being DVB-ASI compatible. The RM01 frame rear module gives two outputs per channel, the RM02 three outputs of the first and four of the second, and the RM18 the maximum four outputs of each. It has GPI indication of inputs absent and LED indication of inputs present. The space-saving DDA208B gives up to 24 channels in 2U and is ideal for situations where you have many feeds and require multiple copies of each – such as after a router.









SPECIFICATION

DDA108

MECHANICAL
Standard Crystal Vision module 266mm x 100m
Weight: 96g
Power consumption: 2.5 Watts

VIDEO INPUT
One SDI input with reclocking
SDI 270Mbit to EBU 3267-E and SMPTE 259M
Cable equalisation >250m Belden 8281 or equivalent

VIDEO OUTPUTS
Maximum of eight reclocked SDI outputs (five outputs with frame rear module RM01 and eight with RM02 and RM18)
Will drive >250m Belden 8281 or equivalent

LED INDICATION OF:
Power supply on board
Input present

DDA108A & DDA108A-BP

MECHANICAL
Standard Crystal Vision module 266mm x 100m
Weight: 96g
Power consumption: 1.5 Watts

VIDEO INPUT
One SDI or ASI input
SDI 270Mbit to EBU 3267-E and SMPTE 259M or ASI data
Cable equalisation >250m Belden 8281 or equivalent

VIDEO OUTPUTS
Maximum of eight non-reclocked SDI or ASI outputs (five outputs with frame rear module RM01 and eight with RM02 and RM18)
All outputs are positive polarity and suitable for DVB-ASI
Will drive >250m Belden 8281 or equivalent

RELAY BYPASS PROTECTION (DDA108-BP ONLY)
The RM38 rear module provides relay bypass protection. An electromechanical relay switch needs power to hold the switch in one state and will revert to the other state (board bypass) on loss of power. It prevents signal loss by mechanically connecting the DDA108A-BP's input to output 1 on complete frame power failure or board removal

LED INDICATION OF:
Power supply on board
Input present

GPI OUTPUT LEVELS
Electrically: Open collector transistors 30V, 270 ohm current limit resistors. Pulled up to +5V through 6800 ohm

GPI OUTPUTS
Input not present

DDA208B

MECHANICAL
Standard Crystal Vision module 266mm x 100m
Weight: 96g
Power consumption: 1.5 Watts

VIDEO INPUTS
Two SDI or ASI inputs
SDI 270Mbit to EBU 3267-E and SMPTE 259M or ASI data
Cable equalisation >250m Belden 8281 or equivalent

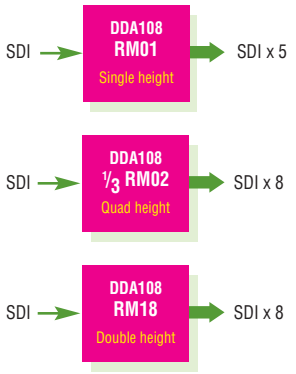
VIDEO OUTPUTS
Maximum of four non-reclocked SDI or ASI outputs per channel (two outputs per channel with frame rear module RM01, three outputs of the first channel and four of the second with RM02 and four of each channel with RM18)
All outputs are positive polarity and suitable for DVB-ASI
Will drive >250m Belden 8281 or equivalent

LED INDICATION OF:
Power supply on board
Input 1 present
Input 2 present

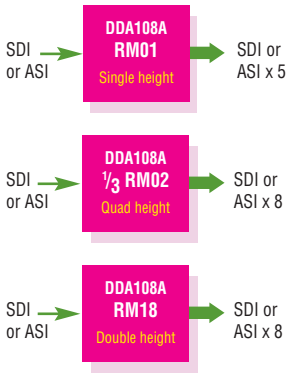
GPI OUTPUT LEVELS
Electrically: Open collector transistors 30V, 270 ohm current limit resistors. Pulled up to +5V through 6800 ohm

GPI OUTPUTS
Input 1 not present
Input 2 not present

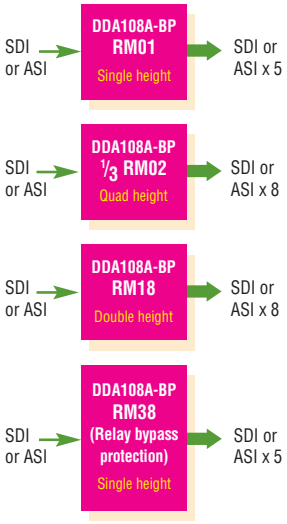
DDA108



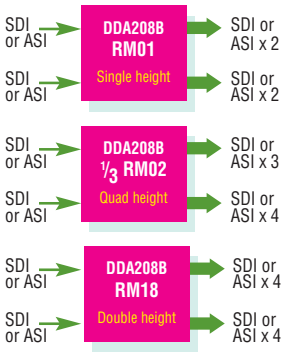
DDA108A



DDA108A-BP



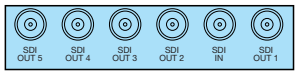
DDA208B



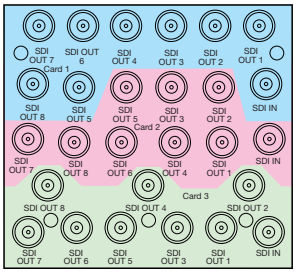
ORDERING INFORMATION

DDA108	Single channel SDI reclocking distribution amplifier with up to eight outputs
DDA108A	Single channel SDI or ASI non-reclocking distribution amplifier with up to eight outputs
DDA108A-BP	Single channel SDI or ASI non-reclocking distribution amplifier with up to eight outputs and optional relay bypass protection
DDA208B	Dual channel SDI or ASI non-reclocking distribution amplifier with up to four outputs per channel
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 the DDA108 gives access to one SDI input and five reclocked SDI outputs. On the DDA108A and DDA108A-BP gives access to one SDI or ASI input and five non-reclocked SDI or ASI outputs. On the DDA208B gives access to two SDI or ASI inputs and two non-reclocked SDI or ASI outputs per channel
RM02	Four slot frame rear module. One rear module used for three boards, allowing 18 boards in 4U and nine in 2U. On the DDA108 gives access to one SDI input and eight reclocked SDI outputs. On the DDA108A and DDA108A-BP gives access to one SDI or ASI input and eight non-reclocked SDI or ASI outputs. On the DDA208B gives access to two SDI or ASI inputs with three non-reclocked SDI or ASI outputs of the first channel and four of the second channel
RM18	Two slot frame rear module for use. Allows 12 boards in 4U, six in 2U, three in 1U and one in desk top box. On the DDA108 gives access to one SDI input and eight reclocked SDI outputs. On the DDA108A and DDA108A-BP gives access to one SDI or ASI input and eight non-reclocked SDI or ASI outputs. On the DDA208B gives access to two SDI or ASI inputs and four non-reclocked SDI or ASI outputs per channel
RM38	Single slot frame rear module used for DDA108A-BP only. Allows maximum number of boards in frame (24 in 4U, 12 in 2U, six in 1U, two in desk top box). Provides relay bypass protection. Gives access to one SDI or ASI input and five non-reclocked SDI or ASI outputs

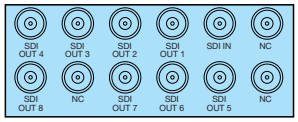
Used with DDA108...



RM01

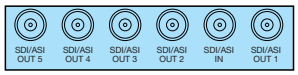


RM02

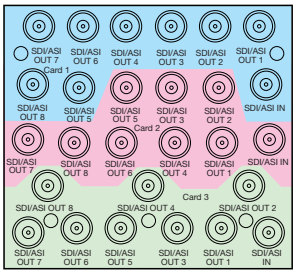


RM18

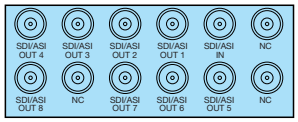
Used with DDA108A and DDA108A-BP...



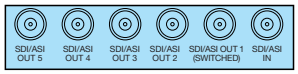
RM01



RM02

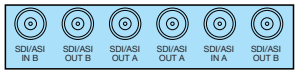


RM18

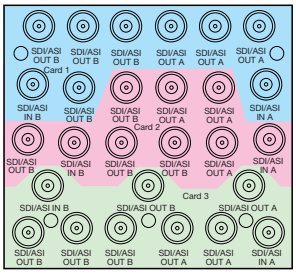


RM38 (DDA108A-BP only)

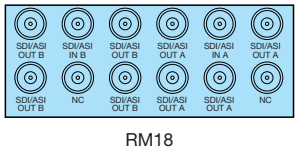
Used with DDA208B...



RM01



RM02



RM18

Performance and features are subject to change. Figures given are typical measured values. DDA0710

Crystal Vision

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