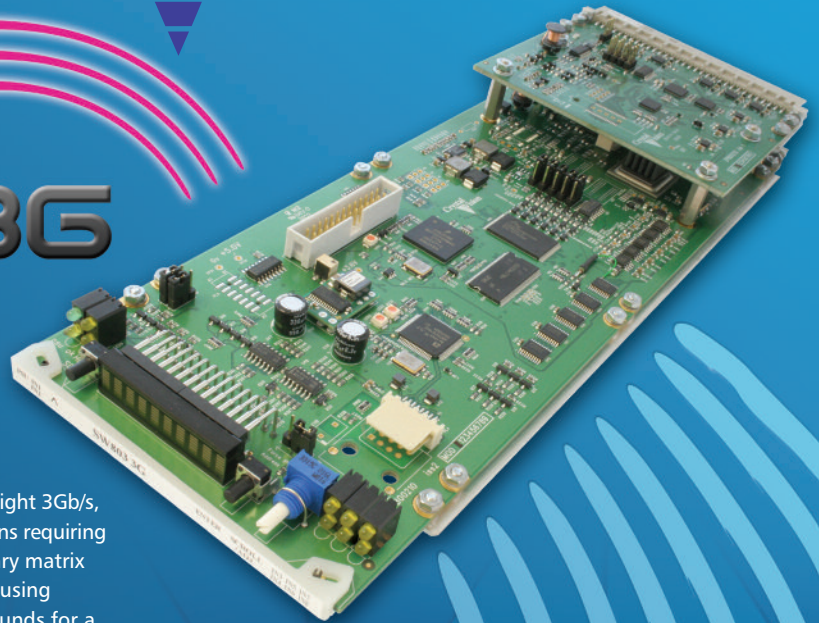


# Crystal Vision

## SW803 3G

### 3G/HD/SD 8 x 3 crosspoint routing switch



The SW803 3G is an 8 x 3 crosspoint routing switch designed to route eight 3Gb/s, HD or SD sources to any of three destinations. Ideal for those applications requiring a small pocket of extra routing, the SW803 3G is perfect as a secondary matrix for small studio uses and is particularly suited to applications already using other Crystal Vision boards – such as providing a selection of backgrounds for a chroma keyer.

Housed in the standard frames alongside the rest of the Crystal Vision interface, keying and picture storage boards and with up to six SW803 3G fitting in 2U, this 'double decker' 100mm x 266mm module saves valuable rack space compared to a stand-alone routing switch. It uses two RM50 frame rear modules to access the eight inputs and three outputs.

The SW803 3G makes it easy to set individual switches: simply select the output, select the input and press the 'Take' button. Alternatively multiple switch macros can be created to change a number of crosspoint switches simultaneously. To avoid picture disturbance, the SW803 3G can switch in the vertical blanking interval according to SMPTE RP168-2009, with timing information provided by either an HD tri-level syncs or SD Black and Burst analogue reference, or by a digital reference generated from any of the four main board inputs. The SW803 3G can also be set to switch immediately – useful in cases when all the signals have different timings and there is no common reference.

Control of the SW803 3G is quick and easy – whichever method you choose. Those who prefer tactile hands-on operation should select the SW808 Controller 1U control panel. Connected to the SW803 3G using an RS422 serial link, it has dedicated illuminated buttons for each of the three destinations and eight sources as well as buttons for 'Take' and the 'Save' and 'Recall' of macros. Useful features include the ability to quickly identify which input is connected to which output – press the destination button and the source connected to it will light – and the 'off' switch being dimly lit to simplify operation in low light. At only 90mm deep the SW808 Controller fits easily in a control desk and is ideal for live operation and for when the SW803 3G has regular adjustment. Alternative control options include board edge switches, active front and remote panels, SNMP and the Statesman PC control software.

Using any of these control methods, as well as GPIs, up to 15 macros and presets can be easily created and stored – allowing you to pre-configure the SW803 3G for various situations and then recall these configurations as required. A macro is a batch of crosspoint assignments which are changed together and will only affect those crosspoints - allowing you to change part of the routing but leave the rest alone. A preset, meanwhile, is a snapshot of the router table which shows the state of every crosspoint as well as set up data, switching mode and reference selection, and should be used when all the routing needs to be brought into a known state. Ideal for bigger systems, macros and presets are ideal if you have several system set ups that you switch between on a regular basis.

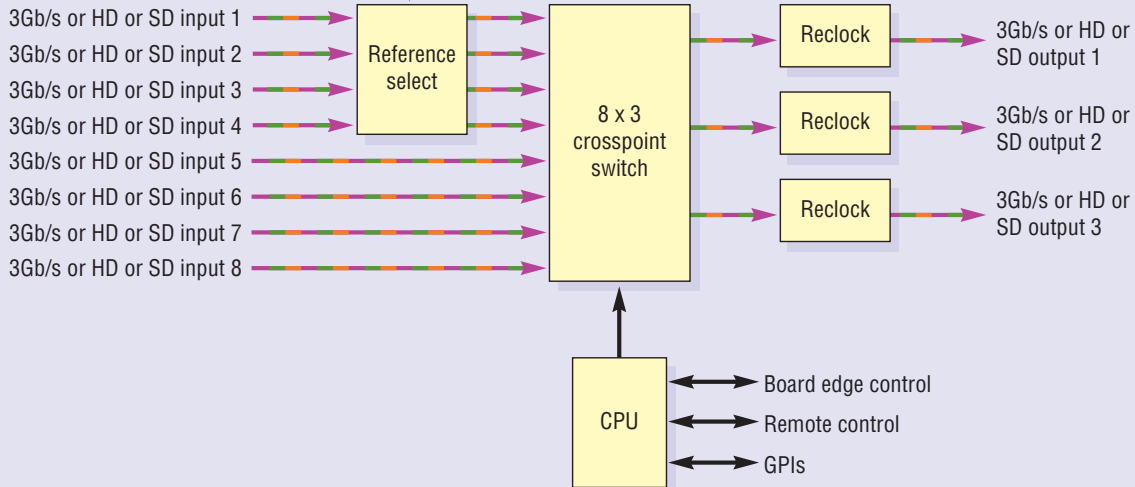
For additional ease of use names can be assigned to the sources and destinations - either using Statesman and the active front panels or by inserting labels under the keycaps on the SW808 Controller.



*Tactile hands-on operation with the SW808 Controller control panel*

- 8 x 3 crosspoint routing switch which works with 3Gb/s, HD and SD
- Eight sources can be routed to three destinations
- Ideal for use as secondary matrix for small studio uses, alongside other Crystal Vision equipment housed in the same frame
- Saves significant space compared to other routing switches: 'double decker' 100mm x 266mm module allows six SW803 3G in 2U (12 in 4U, three in 1U and one in desk top box)
- No picture disturbance on switching: can switch in vertical blanking interval
- Choice of timing sources: either HD tri-level syncs or SD Black and Burst analogue reference, or digital reference generated from any of the first four inputs
- Choose either immediate routing of a selected source to a selected destination, or use macros to change a number of outputs at once
- Save and recall up to 15 macros and presets – ideal if you regularly need to switch between several system set ups
- Flexible control, including board edge, front and remote panels, dedicated 1U control panel, SNMP, GPIs and PC software

Tri-level syncs or  
Black & Burst  
analogue reference



## SPECIFICATION

### MECHANICAL

'Double decker' module 266mm x 100mm (uses two frame slots)  
Weight: 250g  
Power consumption: 14 Watts

### VIDEO INPUTS

Eight 3Gb/s, HD or SD inputs  
270Mb/s or 1.5Gb/s or 3Gb/s serial compliant to EBU 3267-E, SMPTE 259M, SMPTE 292M and SMPTE 424M  
3Gb/s cable equalisation up to 80m using Belden 1694A. HD cable equalisation up to 140m with Belden 1694A or equivalent (approx. 100m with Belden 8281). SD cable equalisation >250m Belden 8281 or equivalent  
Input return loss: -15dB for 50MHz to 1.5GHz and -10dB for 1.5GHz to 3GHz  
Auto 50/59.94/60Hz and video format selection

### VIDEO OUTPUTS

Three 3Gb/s, HD or SD outputs  
270Mb/s or 1.5Gb/s or 3Gb/s serial compliant to EBU 3267-E, SMPTE 259M, SMPTE 292M and SMPTE 424M. Output follows the input format

### DELAY THROUGH BOARD

< 1us

### ROUTING AND TIMING INFORMATION

The eight inputs can be routed to any of the three outputs. One source can go to more than one destination  
The SW803 3G allows both immediate routing of a selected single input to a selected output, and multiple routing to change a number of outputs at once by using a macro. Up to 15 macros can be saved and recalled. Macros do not affect all of the outputs and allow part of the routing to be changed  
Up to 15 presets (a snapshot of the state of every crosspoint) can be saved and recalled  
The switch timing can be either immediate or timed (field or frame)  
Vertical interval switching to SMPTE RP168-2009  
Timing information is provided by either an HD tri-level syncs or SD Black and Burst analogue reference, or by a digital reference generated from any of the four main board inputs. The serial video formats supported are 625, 525, 720p50, 720p59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080p50, 1080p59.94 and 1080p60

### LED INDICATION OF:

Power supplies  
Eight inputs present

### GPI INPUT LEVELS

Active pull to ground, pulled up to +5V through 4700 ohm

### GPI OUTPUT LEVELS

Electrically: Open collector transistors 48V, 270 ohm current limit resistors. Pulled up to +5V through 6800 ohm

### GPI INPUTS

Five GPI inputs - configurable for input selection/routing

### GPI OUTPUTS

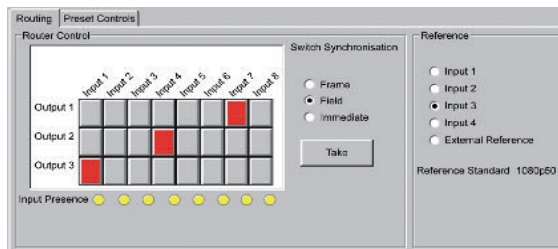
One GPI output - user configurable

### LOCAL CONTROL

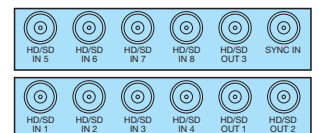
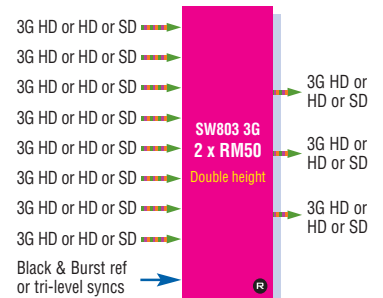
Intuitive board edge interface with two select buttons, shaft encoder and ten character alphanumeric display

### REMOTE CONTROL

RS422/485  
19200 baud, 8 bits, 1 stop no parity  
Control from frame active front panel and remote panel  
SW808 Controller is a dedicated 1U control panel allowing tactile operation  
Statesman allows control from any PC on a network  
SNMP monitoring and control available as a frame option



Easily configure your crosspoint routing with the Statesman PC control software



2 x RM50

## ORDERING INFORMATION

SW803 3G	3G/HD/SD 8 x 3 crosspoint routing switch
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
2 x RM50	Two single slot frame rear modules used together. Allows 12 boards in 4U, six in 2U, three in 1U and one in desk top box. Gives access to eight 3Gb/s, HD or SD inputs, three 3Gb/s, HD or SD outputs and an HD tri-level syncs or SD Black and Burst analogue reference
SW808 Controller	1U dedicated control panel for one SW803 3G
REMIND	19" remote control panel
REMIND-E	19" Ethernet remote control panel
Statesman	PC Control System
SNMP	SNMP monitoring and control

Performance and features are subject to change. Figures given are typical measured values. SW8033G0110