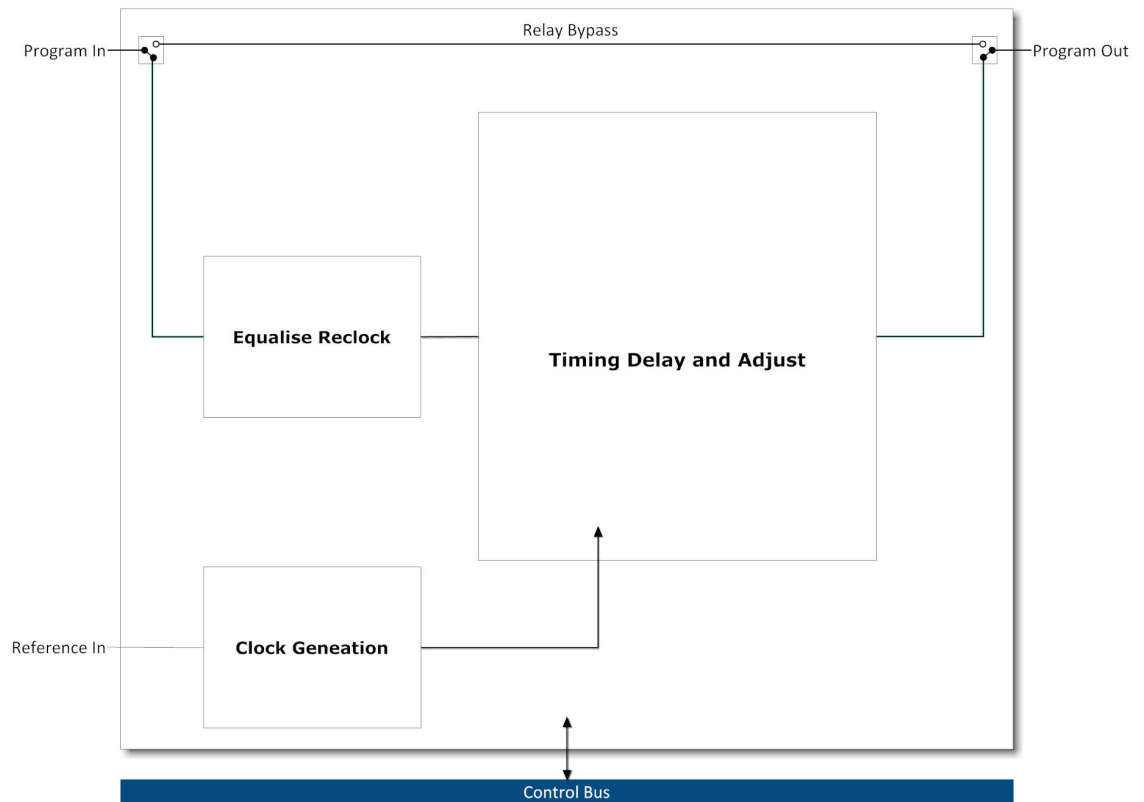


MicroVideo

FRS 300

HD/SD Frame/Line sync



Features

The FRS 300 Synchroniser is a single eurocard size module that fits in Microvideo 1U or 3U rack mounting frames. It is designed to synchronise SD and HD Serial Digital Video signal to an analogue timing reference. The FRS 300's ability to correct any timing problems makes it ideal for broadcast engineers who need to bring untimed HD or SD video into their system. The input video may be completely non-synchronous or may simply need a timing adjustment.

The FRS 300 provides three serial digital outputs with low output jitter. EDH is inserted into the output serial data stream and provides full frame synchronisation with adjustable horizontal and vertical timing.

The FRS 300 provides for up to a frame delay with respect to the SDI input. All settings are protected in the case of power failure with the primary output protected by relay bypass. All ancillary data is passed through untouched.

Timing is taken from an external analogue reference and will automatically synchronise sources between 0 and 2 fields, fixing any incorrect frame rates plus any delays. Inputs, either SD or HD can be referenced to any analogue tri-level or Black Burst syncs.

The FRS 300 can be used to avoid picture disturbances for upstream switching of inputs between mistimed sources that occur in the vertical blanking.

Legalisation of SDI video

10 bit processing throughout

Independent adjustment of processing parameters

Auto senses video standard

Transparent pass through of all ancillary data

Blank/pass individual VBI/VANC data lines

Intuitive Web or RS422 user control

Picture cropping

Specification

Input

SD/HD Serial Video Standard	SMPTE 424M (3Gb/s) SMPTE 292M (1.5Gb/s) SMPTE 259M (270Mb/s) 1080p/59.94, 1080i/59.94, 1080i/50, 720p/50
Number of Inputs	1
Equalization	Automatic to 75m @ 1.5Gb/s with Belden 1694A or equivalent cable.
Return Loss	> 10dB up to 1.5GHz

Output

HD Serial Video Standard	As per input As per input
Number of Outputs	3 (1 relay bypass protected, 1 broadcast quality monitoring output, 1 preview)
Signal Level	800mV nominal
DC Offset	0V ±0.5V
Rise and Fall Time	90ps nominal for HD, 600ps nominal for SD
Overshoot	< 10% of amplitude
Return Loss	> 15dB up to 1.0Gb/s, > 10dB up to 1.5Gb/s
Wideband Jitter	< 0.2UI

Miscellaneous

Weight Approx	250g
Operating Temp	0 °C to +50 °C
Dimensions	16 x 100 x 237 mm (HxWxD)
Electrical	Voltage +5Vdc

Options

Frames/Cases

HD1U-10	Rack mounting 1U frame with single PSU. Allows use of upto 6 Series 200 and 300 cards
HD1U-20	Rack mounting 1U frame with dual PSU. Allows use of upto 6 Series 200 and 300 card
SA-1-DG	Desktop Box to house single series 300 card (including TCPIP, RS232/422, cables and PSU)

Rear Connections

Program In
Not Used
Not Used
Aux Out
Aux Out
Program Out

