

MicroVideo

HDL 301 sdi video delay processor

Features

Designed for use in satellite uplink, signal re-entry on master control inputs, at cable headends, mobile vehicle outputs, broadcast transmitter inputs, virtual sets and matching delays caused by multi-channel audio compression, the Microvideo HDL 301 is an HD (SMPTE 425M) SD (SMPTE 259M) SDI video offset delay capable of delaying video up to 15 seconds (SD-SDI).

Adjustable in frames, lines and pixels, the unit has a Serial Digital (HD/SD-SDI) input, one re-clocked SDI output and 2 delayed SDI outputs. The modules feature bypass relay protection on the primary output.

The HDL 301 occupies a single card slot and can be housed in the FR1U frame which holds up to 6 modules with a single PSU or 4 with the dual mains option, the FR3U frame has a 15 slot capacity.

At a glance

- Adjustable offset delay up to 446 frames (SD)
- Auto senses video standard
- Adjustable delay setting per format i.e. 1080, 720 and SD
- Transparent pass through of all ancillary data
- Delay programmable in:
 - video units (frames, lines and samples)
 - Time units (seconds)
- Bypass relay for program path protection on power loss
- Up to 2.5 seconds delay for HD (1.5Gb/s)
- Up to 15 seconds delay for SD
- Card edge controls operate menu system to program delay settings

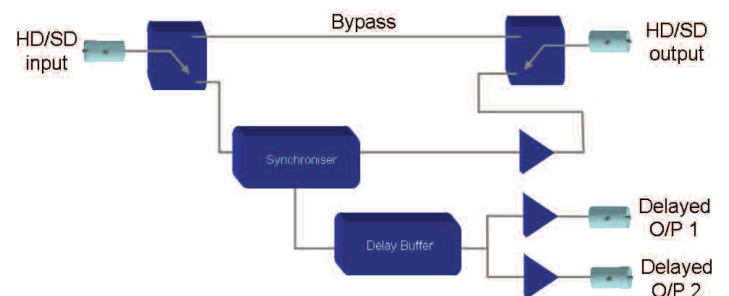


Applications

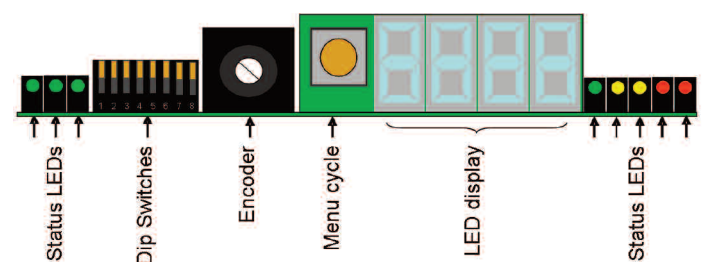
- live events
- satellite uplink
- cable headends
- mobile vehicle outputs
- broadcast transmitter inputs
- virtual sets and matching delays caused by multi-channel audio compression

The HDL 301 can also be used for 'de-glitching' hot switches on upstream equipment.

Block Diagram



Card-edge Controls



Rear module



Input

SD/HD Serial Video	SMPTE 425M (3Gb/s) SMPTE 259M (270Mb/s) SMPTE 292M (1.5Gb/s)
Standard	up to 1080p/60
Number of Inputs	1
Equalization	Automatic to 75m @ 1.5Gb/s with Belden 1694A or equivalent cable.
Return Loss	> 10dB up to 3Gb/s, >15dB up to 1.5Gb/s

Output

HD Serial Video	As per input
Standard	As per input
Number of Outputs	3 (1 relay bypass protected, 2 broadcast quality monitoring outputs)
Signal Level	800mV nominal
DC Offset	0V \pm 0.5V
Rise and Fall Time	90ps nominal for HD 3Gb/s, 600ps nominal for SD 270Mb/s
Overshoot	< 10% of amplitude
Return Loss	> 10dB up to 3Gb/s, > 15dB up to 1.5Gb/s
Wideband Jitter	< 0.2UI

Miscellaneous

Weight Approx	175g
Operating Temp	0 °C to +50 °C ambient
Dimensions	16 x 100 x 237 mm (HxWxD)
Electrical	Voltage +5Vdc

Frames

FR1U-10	Rack mounting 1U frame with single PSU and 6 slots for Series 300 cards
FR10-20	Rack mounting 1U frame with dual PSU and 4 slots for Series 300 cards
FR3U-10	Rack mounting 3U frame with single PSU and 15 slots for Series 300 cards
FR3U-20	Rack mounting 3U frame with dual PSU and 15 slots for Series 300 cards