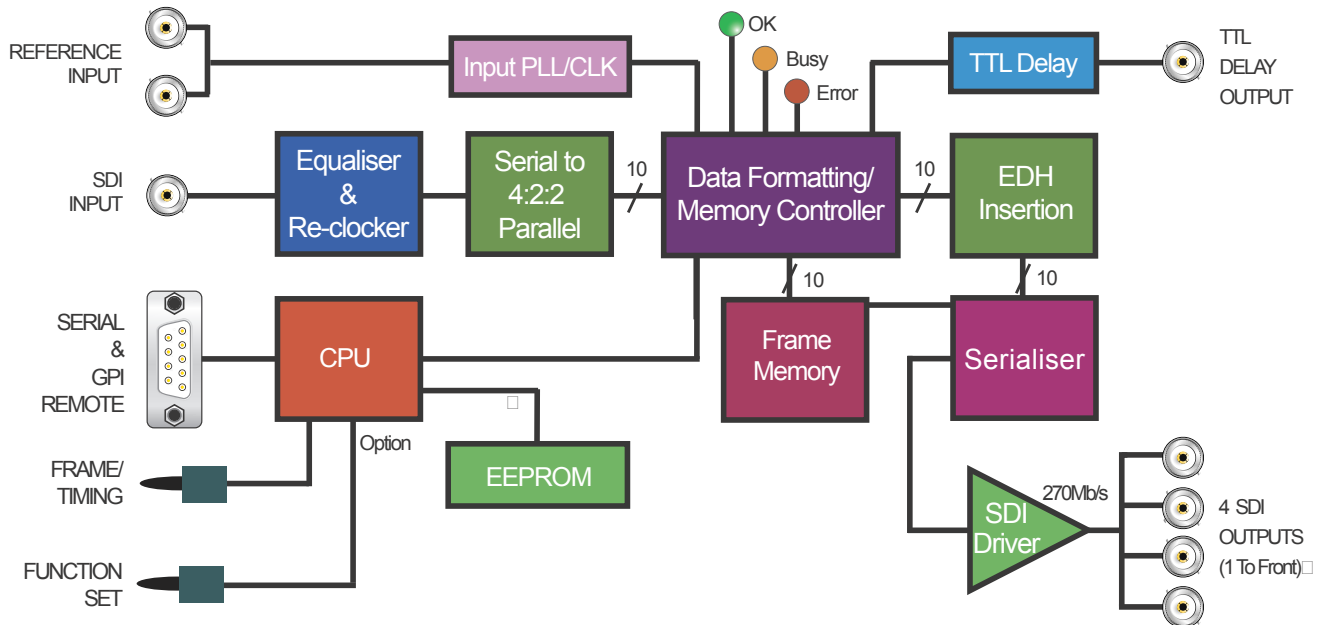


# SSS-104N | SDI TO SDI VIDEO FRAME SYNCHRONISER

The Provideo SSS-104N series eurocard of frame synchroniser–frame delay provides a broadcast quality solution to the synchronisation or the delay of external serial digital signals.



## Features

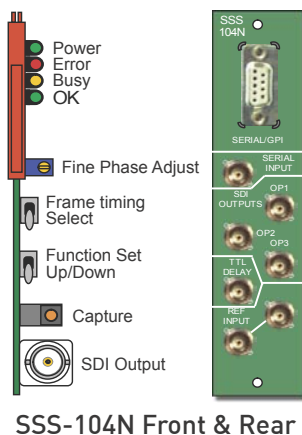
- ▶ SDI frame synchroniser
- ▶ Fully adjustable timing range 1 us to 1 frame
- ▶ EDH insertion
- ▶ 10 bit processing
- ▶ 525/625 autoselection

The SSS-104N-FS provides four serial digital outputs with low output jitter. EDH is inserted into the output serial data stream. The SSS-104N-FS provides full frame synchronisation and adjustable horizontal, vertical and continuously variable subpixel timing.

The SSS-104N-FD provides for up to a frame delay with respect to the SDI input. Any settings are protected in the case of power failure. Both 625 and 525 line video formats are automatically supported. EDH and other ancillary data are passed through untouched. The SSS-104N series processes the SMPTE 259M signal with full 10 bit accuracy.

The SSS-104N-FS output picture is synchronised to an external analogue reference signal. Alternatively, the output picture can be delayed relative to the input digital signal. In either case, the output timing is continuously variable on a subpixel basis over a full frame. A separate TTL delay output is provided that reflects the delay between the SDI input and the external reference signal; this signal is intended for auto audio tracking delay applications.

The SSS-104N series acts as a digital jitter remover by buffering the data and reclocking it using an external jitter free analog reference source. User selection in the event of input loss from outputting black or freezing last frame/field.



## Simple to install

SSS-104N series modules can be housed in any of the Provideo euroframe and power supply systems. The SSS-104N series can be mounted with other Provideo eurocard products in combination. Other housings are available.

On-board fusing using self-resettable poly fuses and regulation provide excellent card-to-card isolation.

All connections are located on the rear connector assembly. Mating modules into any frame is achieved by screwdriver only. Modules can be installed or removed whilst the frame is powered. The SSS-104N series is supplied with a rear connector assembly and associated mounting hardware.



SSS-104N Profile

## Technical Specifications

SERIAL INPUT	
<b>Connectors</b>	1 x 75 $\Omega$ source terminated BNC
<b>Return Loss</b>	>19 dB to 270 Mb/s
<b>Data Rate</b>	270 Mb/s
<b>Equalisation</b>	200 m
<b>Signal Standards</b>	Auto selection between 625/525 component digital
ANALOGUE REFERENCE INPUT	
<b>Connectors</b>	2 x 75 $\Omega$ BNCs with passive loop-through
<b>Signal Standard</b>	PAL 625/50 or NTSC 525/60
<b>Return Loss</b>	>40 dB to 6 MHz
TTL DELAY OUTPUT	
<b>Delay Pulse</b>	TTL positive output pulse equal to the SDI to reference delay
SERIAL OUTPUT	
<b>Connectors</b>	4 x 75 $\Omega$ source fed BNCs (three to rear and one to front)
<b>Level</b>	800 mV p-p $\pm$ 10%
<b>DC Offset</b>	0 V
<b>Signal Standard</b>	4:2:2 SMPTE 259M
PERFORMANCE	
<b>Signal Processing Quantisation</b>	10 bits
<b>Signal Processing Sampling</b>	27 MHz
<b>Input Bypass</b>	Input is power fail bypassed to output 1
<b>Delay Range Minimum</b>	7 lines + (19 clocks, 9.5 pixels or 703 ns)
<b>Delay Range Maximum</b>	1 frame + 7 lines +703 ns including fine phase adjustment
<b>Phasing Range</b>	0 ns – 1 frame
INDICATORS	
<b>Power</b>	Front PCB LED confirms power is present to the module
<b>OK</b>	Front PCB LED confirms that input and reference clock are correctly locked
<b>Error</b>	Front PCB LED confirms if the input signal is absent or interrupted
<b>Busy</b>	Front PCB LED flashes if the unit is storing delay information
GENERAL	
<b>Compatible Frame(s)</b>	Many options available, please refer to Provideo Euromodule Frame brochure

Specifications subject to change without prior notice.

## Ordering Information

**SSS-104N-FS**  
**SSS-104N-FD**

SSS-104N-FS SDI synchroniser euromodule includes rear connector assembly  
SSS-104N-FD SDI frame delay euromodule includes rear connector assembly

contact

W [www.codan.com.au/broadcast](http://www.codan.com.au/broadcast)

f +61 (0)8 8362 2790

e [broadcast@codan.com.au](mailto:broadcast@codan.com.au)

t +61 (0)8 8362 2760