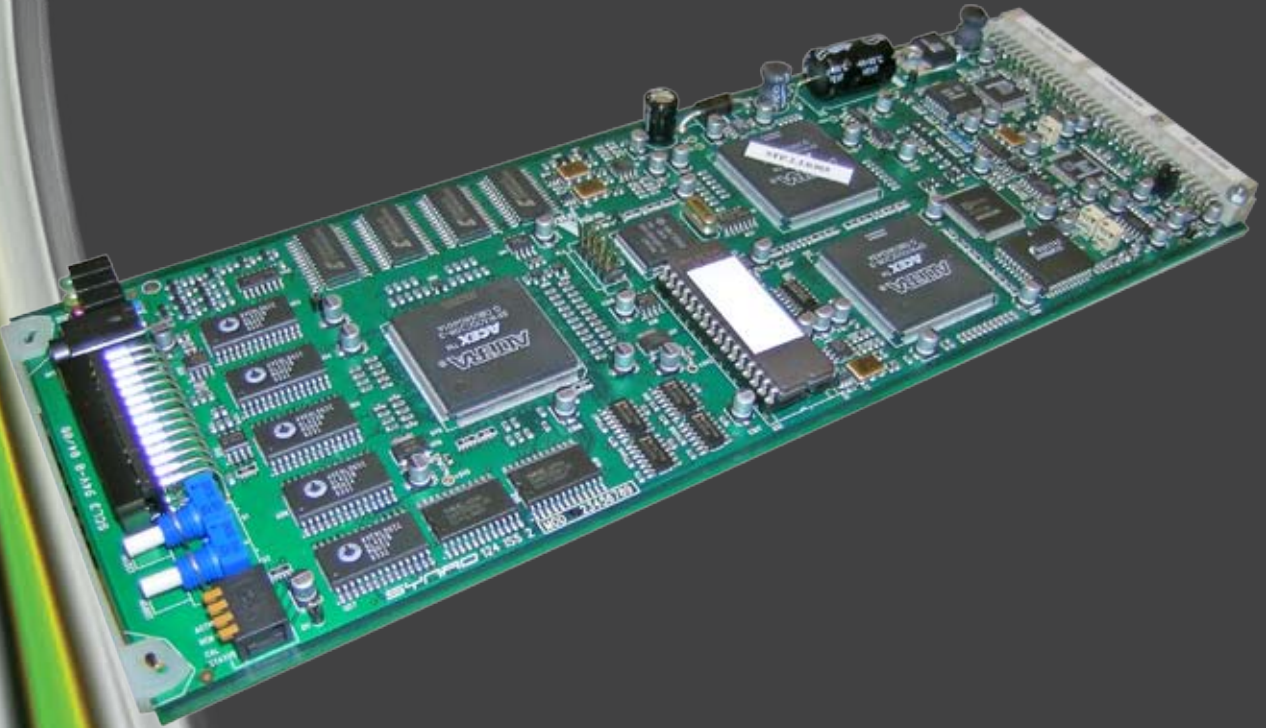


SyncGenerator

High quality genlock signal in both analog & digital formats.



Creative Power At Your Fingertips!

With your Overture Series switcher, only one reference generator will do: **Echolab's SyncGenerator!** All high-quality video production studios should have a reliable analog black burst and SDI black reference as their genlock solution. **SyncGenerator** provides a reliable genlock signal for all your analog and digital devices.



Fixed Desktop Frame

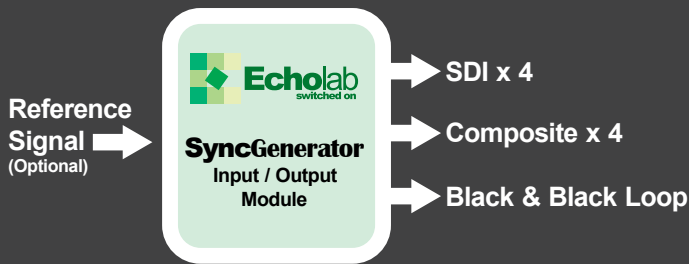
Desktop - (1RU rack mount ears included)
Echolab **SyncGenerator** with 4 SDI Black outputs, 4 composite Black and Burst outputs, and a looping reference input.

Analog and Digital Video SyncGenerator with Expandable Frame (1RU)

Echolab **SyncGenerator** with 4 SDI Black outputs, 4 composite Black and Burst outputs, and a looping reference input. Provides future expansion opportunities to hold up to 6 cards and 6 rear modules for distribution amplifiers, aspect ratio converters and other cards.

Echolab SyncGenerator

The Echolab **SyncGenerator** will output both an analog and serial digital reference. The **SyncGenerator** may be operated as a free running source for studio reference, or locked to an existing analog reference signal. The output delay of the **SyncGenerator** is adjustable up to two fields. The output can be in blue or black, and in NTSC or PAL formats.



The serial digital output has very low output jitter both when used with a stable analog reference and when used in free-run mode. The minimum delay between the input reference and output is only 2µs.

The main features are as follows:

- Operates in free-run or synchronized modes
- Selectable black or blue output
- Up to four simultaneous Serial Digital and four Composite outputs
- Output timing up to two field's adjustment from analog reference input
- 50 ppm free running accuracy

The Echolab **SyncGenerator** has two modes of operation, free-run and synchronized. In synchronized mode the unit takes its timing from the analog external reference (studio signal) and will automatically lock its output to this. It is then possible to add a delay of between 0 and 2 fields in lines and pixels to the output reference with respect to the external reference.

In free-run mode the output reference is timed to an accurate on board clock generator. Switching between free running and synchronizer mode is automatic when the external reference is added or removed.

System Specifications

Dimensions	100mm x 266mm Module with DIN 41612 Connector
Weight	225g
Power Consumption	12W
Reference Input	Video - Analog Black & Black, Mixed Syncs or Video Amplitude of Syncs 100mV to 4V/PCB Link Selects 75 Ω Termination or High Impedance with Loop - Through
Processing	Delay - Output Reference Delayed to External Reference Input from 2µs to 2 Fields
Control	Local/Remote Control Panel: Multi-Drop 19200 Baud, 8 Bits, no Parity – Control from Local Frame Active Front Panel / Remote Panel SDI Jitter : 397-434ps in Both Alignment and Timing Jitter when Measured in Free-Run Mode

Outputs

SDI	Maximum of 4 Reclocked SDI Outputs to EBU Tech 3267 - E and SMPTE - 259M Will Drive > 200m Belden 8281 or Equivalent
Composite	Maximum of 4 PAL / NTSC Analog Outputs

Specifications - Expandable Frame

Dimensions	482mm Wide (19in), 44.5mm High (1U), 425mm Deep
Weight	3.5kg
Power Requirements	85 to 264 volts, 47 to 400Hz
Power Supply	Single Plug in Power Supply (75 Watt)
Capacity	1 RU Rack Mount - For up to 6 Modules

Specifications - Fixed Frame

Dimensions	223mm Wide, 44.5mm High (1U), 365mm Deep
Weight	2.5kg
Power Requirements	20-36Vdc 30W max
Power Supply	Single Built in Power Supply
Capacity	1 RU Desk Mount (With Rack Mount Ears) - For up to 2 Modules

System Overview with OvertureSD Switchers and Mixed Format Devices

The **SyncGenerator** is certified for use with all dual format OvertureSD switchers. Using **SyncGenerator** as the master genlock signal for the video production system is the ideal way to ensure that all analog and digital devices have stable and synchronized genlock signals in analog black and burst or SDI black formats. In this configuration, the switcher and up to 3 devices can use the SDI black signal as a genlock signal and up to 4 devices can use the analog black and burst signal as their genlock signal. In this model, the system should be configured in the following manner.

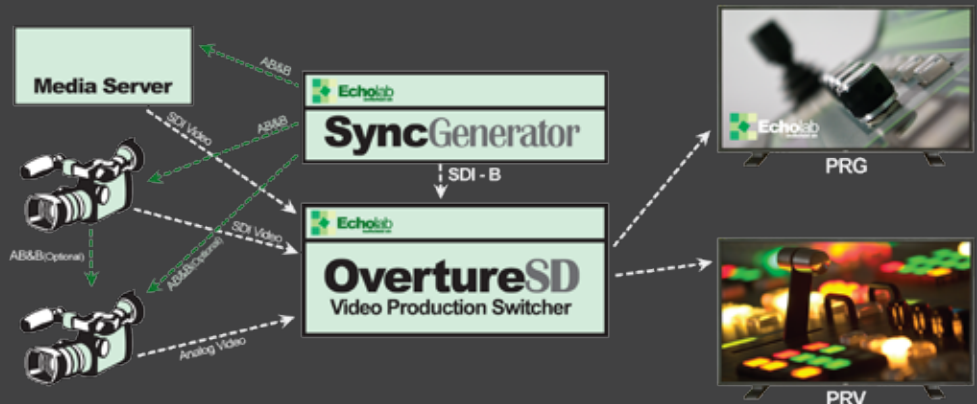
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The OvertureSD switcher internally converts the analog video signal to a digital video signal. The SyncGenerator provides an analog and digital representation of the genlock signal that is in time with the video signal from the analog and digital devices. In this configuration, no additional analog to digital conversion gear is required and the genlock, analog and digital video signals are synchronized.