

KUDOS+PLUS

KUDOS PLUS TBS150D

SDI & Composite Synchronizer

Broadcast quality synchronizer and time base stabilizer

The **TBS150D** is a multi-standard broadcast quality synchronizer and timebase stabilizer with SDI, composite and Y/C interfaces. Featuring 12-bit sampling, 10-bit processing and rugged inputs, the TBS150D is equally suited to digitizing broadcast grade sources as with unstable, noisy sources.



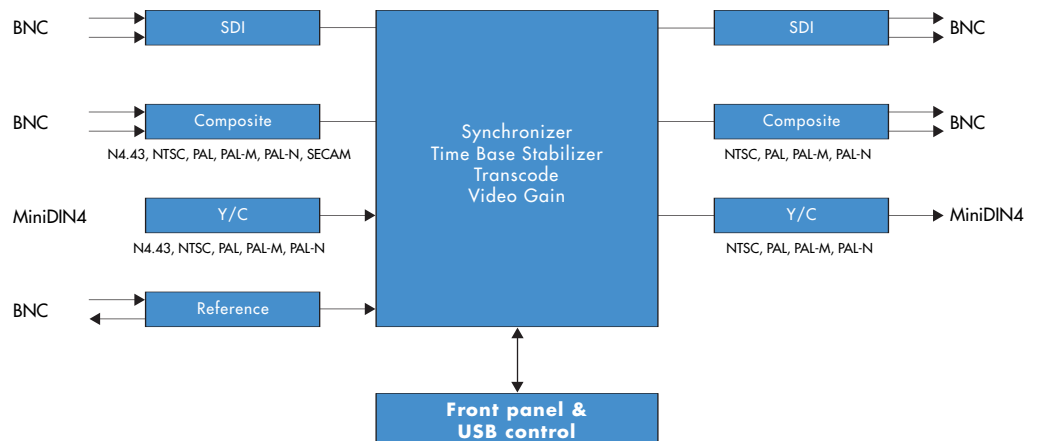
Features

- SDI Composite & Y/C synchronization
- Timebase stabilization
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs NTSC, N4.43, PAL, PAL-M, PAL-N, SECAM with automatic input detection
- Outputs NTSC, NTSC-J, PAL, PAL-N, PAL-M
- Unique 'Floating mode'* for no lip-sync error
- Video gain, black level, chroma gain, NTSC hue
- USB Remote control
- Compact ½ rack width with rack mount kit

Applications

- Analog / Digital interface
- Incoming feeds
- Ingest / PC capture pre-processing
- Satellite down-link & radio links
- Duplication
- VHS dubbing

TBS150D Synchronizer



Full Product List

Base Model

Kudos Plus TBS150D multi-standard synchronizer and timebase stabilizer with SDI and analog composite and YC interfaces, with 12-bit sampling and 10-bit processing. (3548601)

Base Model

Kudos Plus TBS150D as above, with rack mount kit (3548601-RM)

Snell & Wilcox Inc.
3519 Pacific Ave.
Burbank, CA 91505
Tel: +1 818 556 2616
Fax: +1 818 556 2626
info@snellamerica.com

Snell & Wilcox Ltd.
Southleigh Park House,
Eastleigh Road, Havant,
Hampshire PO9 2PE, UK
Tel: +44 (0) 23 9248 9000
Fax: +44 (0) 23 9245 1411
info@snellwilcox.com

Snell & Wilcox (Hong Kong) Ltd.
Room 603, Tai Tung Building,
No.8 Fleming Road,
Wanchai, Hong Kong
Tel: +852 2356 1660
swhk@snellwilcox.com.hk

Company policy is one of continuous product improvement. Specifications are therefore subject to change without notice.

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Inputs and Outputs

Video Input

2 x SDI	525/625 line with automatic detection
2 x Composite	27MHz, 12-bit sampling PAL, NTSC, NTSC-J, N4.43, PAL-N, PAL-M, SECAM with automatic detection
1 x Y/C	27MHz, 12-bit sampling NTSC, NTSC-J, N4.43, PAL, PAL-M, PAL-N with automatic detection (MiniDIN4)
Reference	Composite or Y (BNC loop-through)

Video Output

2 x SDI	525/625 line
2 x Composite	27MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, PAL, PAL-M, PAL-N
1 x Y/C	27MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, PAL, PAL-M, PAL-N (MiniDIN4)
Remote control	USB

Control Features

Input Select	SDI A,B; Composite A, B; YC
Output Standard	PAL, PAL-N for 625 line inputs (input standards NTSC, NTSC-J, PAL, PAL-N, SECAM) NTSC, NTSC-J, PAL-M for 525 line inputs (NTSC, NTSC4.4, PAL-M)
Frame Freeze	Freezes next frame
Field Freeze	Freezes next field
Luminance Gain	Preset; + 6dB
Chrominance Gain	Preset; + 6dB
Black Level	Preset; + 100mV
NTSC Hue	Preset; + 30 deg
Genlock Phase	Preset; + 1 line
Genlock Mode	Lock to reference; Lock to input (stabilized); Free-run
Output Pattern	Black; Colour Bars
Default Output	When input is lost: go to black; go to colour bars
Decoder / Encoder	AGC, ACC, comb, pedestal, DNR, CTI

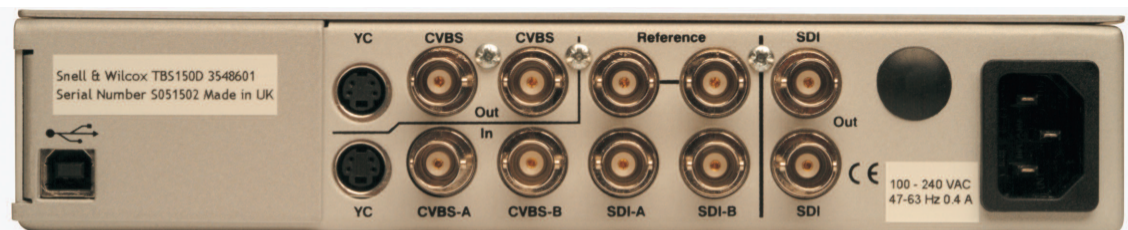
Indication / Monitoring (also Logging / RollTrack)

Input Standard	Present; Standard
Reference	Present; Error (Error indicated if the reference is not the same line standard as the input)
Power	Standby

System Parameters

Processing	≥10 bit
SDI input switch	Tolerant to SMPTE RP168 vertical interval switch. Tolerant to missing / repeated vertical interval lines in 625
SDI Data	All VANC & HANC data passed
Vertical Interval	All luminance data passed
Data lock range	Greater than ±80ppm
Dimensions	1/2 1 RU rack (44 x 220 x 250mm)
Temperature	0 °C to 35 °C operating -20 °C to +70 °C storage

*Floating Mode - Without a reference the output will either free-run or lock to a stabilized input sync if operating in synchronize mode. In this stabilised or 'floating mode' the output will always follow shortly after the input, so preventing lip-sync errors and frame drop/repeat. The inputs are highly tolerant to unstable and noisy sources, while the synchronizer always creates correctly aligned images, even during sync disturbances and asynchronous input switches.



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