

KUDOS PLUS TBS150 Composite & Component Synchronizer

Broadcast quality synchronizer and time base corrector

The **TBS150** is a multi-standard broadcast quality synchronizer and timebase stabilizer with analog component, composite and Y/C interfaces. Featuring 12-bit sampling, 10-bit processing and rugged inputs, the TBS150 will work equally well with broadcast grade sources as with noisy, unstable sources such as radio links or VHS players.



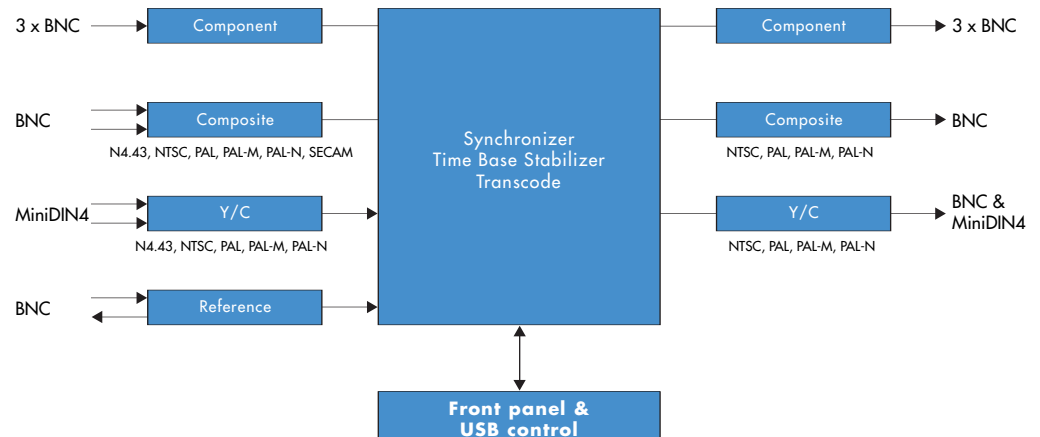
Features

- Composite, Component & Y/C synchronization
- Timebase stabilization
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs N4.43, NTSC, NTSC-J, PAL, PAL-M, PAL-N, SECAM with automatic input detection
- Outputs NTSC, NTSC-J, PAL, PAL-M, PAL-N
- 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

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

TBS150 Synchronizer



Full Product List

Base Model

Kudos Plus TBS150 multi standard synchronizer and timebase stabilizer with composite and Y/C interfaces, 12-bit sampling and 10-bit processing (3548600)

Base Model

Kudos Plus TBS150 as left, with rack mount kit (3548600-RM)

Option

Rack mount kit to mount one or two units in a 19" rack (INSY-MNT-KIT)

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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 Composite	27 MHz, 12-bit sampling NTSC, NTSC-J, N4.43, PAL, PAL-M, PAL-N, SECAM with automatic detection
1 x Y/C	27 MHz, 12-bit sampling NTSC, NTSC-J, NTSC4.4, PAL, PAL-M, PAL-N with automatic detection (MiniDIN4)
1 x Component	27 MHz, 12-bit sampling Input Format YPbPr (3 x BNC)
Reference	Composite or Y (BNC loop-through)

Video Output

1 x Composite	27 MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, N4.43, PAL, PAL-M, PAL-N
1 x Y/C	27 MHz, 12-bit D to A. Output Formats NTSC, NTSC-J, N4.43, PAL, PAL-M, PAL-N (BNC or MiniDIN4)
1 x Component	27MHz, 12-bit D to A Standards 525; 625 / YPbPr; RGB (3 x BNC)
Remote control	USB

Control Features

Input Select	Composite A, B; YC Component YPbPr
Output Standard	PAL, PAL-N for 625 line inputs (PAL, PAL-N, SECAM) NTSC, NTSC-J, PAL-M for 525 line inputs (NTSC, N4.43, PAL-M)
Frame Freeze	Freezes next frame
Field Freeze	Freezes next field
Luminance Gain	Preset; ±6 dB
Chrominance Gain	Preset; ±6 dB
Black Level	Preset; ±100 mV
NTSC Hue	Preset; ±30 °
Genlock Phase	Preset; ±1 line
Genlock Mode	Lock to reference; Lock to input (stabilised); Free-run
Output Pattern	Black; Colour Bars
Default Output	When input is lost: go to black; go to colour bars
Decoder / Encoder	ARC, ACC, comb, pedestal, DNR, CTI
Output Pattern	Black; Color Bars
Default Output	When input is lost; go to black; go to color bars
Decoder / Encoder	AGC, ACC, comb, DNR, CTI

Indication / Monitoring (also Logging / RollTrack)

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

System Parameters

Processing	10 bit
Vertical Interval	All luminance data passed
Reference Lock range	Greater than +80 ppm
Dimensions	1/2 1 RU rack (44 mm x 220 mm x 250 mm)
Temperature	0 °C to 35 °C operating -20° C to +70 °C storage

Mechanical

Dimensions	½ 1RU rack (44x220x250mm)
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 stabilized 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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