

The TBS190 is a multi-standard broadcast quality synchronizer, noise reducer and time base stabilizer with SDI, DV, composite and Y/C interfaces. Embedded audio is processed as well as providing options for AES and analog audio interfaces. Featuring 12-bit sampling, 10-bit processing and rugged inputs, the TBS190 is equally suited to digitizing broadcast grade sources as with unstable, noisy sources. There are 3 variants of TBS190D with SDI, Y/C and composite video. Supporting embedded audio and either balanced AES, unbalanced AES or analog audio. There are 3 variants of TBS190DV with DV, SDI, Y/C and composite video. Supporting embedded audio and either balanced AES, unbalanced AES or analog audio.

The Kudos Plus TBS190 has a DC input for redundant PSU capability and is provided in a compact half rack width housing with remote control capability via Ethernet.

## Kudos Plus TBS190

### SDI, DV & Composite Broadcast Quality Synchronizer & Time Base Stabilizer with Analog & Embedded Audio



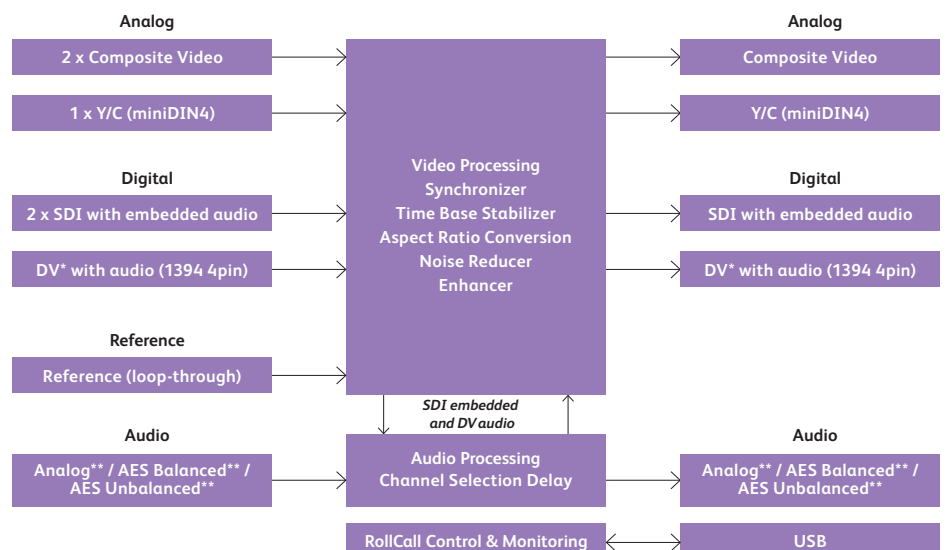
#### Features

- SDI, DV, composite & Y/C synchronization
- Time base stabilization
- Adaptive recursive noise reduction with automatic noise level detection
- 12-bit decoding with 5-line comb filter
- 12-bit encoding
- Inputs PAL, NTSC, NTSC-J, NTSC4.4, PAL-N, PAL-M, SECAM with automatic input detection
- Outputs PAL, NTSC, NTSC-J, PAL-N, PAL-M
- 4 channel (2 pair) embedded audio processing
- Seamless PCM audio tracking delay with manual offset - up to 2.5s
- Pass through for all HANC/VANC data
- Composite inputs tolerant to noise & errors
- Unique genlock 'Floating Mode'

- RollCall compatible via USB link
- Video gain, black level, chroma gain, NTSC hue
- Options for balanced / unbalanced AES and balanced analog interfaces
- Compact ½ rack width with optional rack mount kit. Low power (no fan)
- Optional external PSU for redundancy

#### Applications

- Universal analog/digital interface
- Audio embedding & extraction
- Satellite down-link & radio links
- Ingest/PC capture pre-processing
- Duplication
- VHS dubbing
- Format conversion



TBS190

\*DV optional  
\*\*Only one audio type per product



## Ordering Options

<b>Model</b>	<b>TBS190AD</b>
<b>Order Code</b>	3548602
<b>Description</b>	SDI and composite synchronizer and time base stabilizer with embedded and analog audio
<b>Model</b>	<b>TBS190BD</b>
<b>Order Code</b>	3548603
<b>Description</b>	Description SDI and composite synchronizer and time base stabilizer with embedded and balanced AES audio
<b>Model</b>	<b>TBS190UD</b>
<b>Order Code</b>	3548604
<b>Description</b>	SDI and composite synchronizer and time base stabilizer with embedded and unbalanced AES audio
<b>Model</b>	<b>TBS190ADV</b>
<b>Order Code</b>	3548605
<b>Description</b>	DV, SDI and composite synchronizer and time base stabilizer with embedded and analog audio
<b>Model</b>	<b>TSB190BDV</b>
<b>Order Code</b>	3548606
<b>Description</b>	DV, SDI and composite synchronizer and time base stabilizer with embedded and balanced AES audio
<b>Model</b>	<b>TBS190UDV</b>
<b>Order Code</b>	3548607
<b>Description</b>	DV, SDI and composite synchronizer and time base stabilizer with embedded and unbalanced AES audio

### \*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.