Streambox®

Real-Time Video Transport in a Compact 1 RU Form Factor

The Streambox® SBT3-5200 Video Transport system is a true 24/7 plug-and-connect real-time video transport solution that delivers stunning full-motion, full frame interlaced broadcast video and audio over satellite and IP-based networks. Streambox® ACT-L3™ systems excel over low bandwidth connections while providing unrivaled video compression and quality.

With a compact 1-RU profile, the SBT3-5200 is ideal for use in live news broadcasts, distribution to cable head-ends, integration into news trucks, and other video delivery applications where small size, high reliability, superior performance, and low power requirements are important.

The SBT3-5200 model supports genlock and features composite SD-SDI inputs with embedded, balanced, and AES audio. The encoder's half duplex mode also enables it to be used as a decoder with multiple SDI and composite outputs.

The system relies on the Streambox® ACT-L3™ technology already widely used by news organizations worldwide and adds the benefit of a smaller, lighter weight chassis. All ACT-L3™ systems, including the SBT3-5200, are extremely energy efficient and include a robust error correction feature set. With adjustable latency, user-configurable presets, and seamless local or remote management, the SBT3-5200 is a truly flexible video transport solution.

Target Markets and Applications

- Backhaul video transport
- Digital newsgathering
- Satellite video transport
- Newsgathering trucks
- Video conferencing
- Point-to-point and point-to-multipoint video distribution
- Law enforcement
- Surveillance and security
- Centralcast television
- Telemedicine
- Online and distance learning

Solution Package and Options

- ACT-L3™ Encoder(s) and Decoder(s)
- Streambox® Broadcast Server
- Streambox® Distribution Server
- ACT-L3™ Full Duplex
- Streambox® Store and Forward and Playout™

Solution Overview

The SBT3-5200 Video Transport system provides best-of-class performance and reliability due to its unrivaled video compression and error correction technologies. The system also enables broadcasters and cable operators to leverage the store and forward option which provides enhanced storage, management, and transmission of video over packet-based networks.

Streambox® ACT-L3™ Codec

The ACT-L3™ Codec features an advanced proprietary video compression technology optimized for interlaced display systems. ACT-L3™ matches MPEG-2 video quality up to a 75% lower data rate and it is up to 50% more efficient than MPEG-4. The ACT-L3™ Codec is adaptable to differing data rate requirements with constant bit rate and variable bit rate modes.

The robust family of ACT-L3™ Video Transport solutions features innovative error correction technologies and bandwidth shaping technologies which enable users to manage, control, and mitigate packet loss and correct irregularities inherent in video delivery over satellite and IP networks.

Solution Reliability

The SBT3-5200 system is designed for 24/7 unattended use. Features include:

- Video and audio signal re-connect upon signal loss
- Encoder/decoder restart in case of video/audio irregularities, large packet loss or extended signal loss.
- Immediate system restore, upon power outage or system reset

Solution Features

- Unrivaled video compression and quality at low data rates
- 4:2:0 and 4:2:2 color profiles
- Best-of-class performance and reliability with advanced networking features

- Advanced forward error correction and burst error protection.
- Low end-to-end latency. Provides adjustable latency for video conferencing or broadcasting
- Cost-effective newsgathering and video conferencing
- Seamless local or remote system management
- Optional store and forward feature for enhanced storage, management, and transmission of video over packet-based networks
- Half duplex mode (encoder only) is provided for easy switching between encoder and decoder modes
- User friendly back panel access to video and audio ports
- User configurable presets for quick and flexible setup

Technical Specifications

Video Formats:	NTSC/60i, PAL/50i
Video Encoding:	Resolution: D1, 3/4, 2/3, 1/2, CIF, QVGA Frame rate: full, 3/4, 1/2, 1/3, 1/4, 1/5, 1/10
Audio Codecs:	AAC, GSM, and CELP Up to 128 Kbps per channel 44.1 or 48 KHz sampling rate
Streaming Rate:	User selectable from 64 kbps to 8 Mbps
Audio Inputs:	2-ch SDI, 2-ch AES, 2-ch Analog XLR
Audio Outputs:	2-ch SDI, 2-ch AES, 2-ch Analog XLR
Closed Caption:	Line 21 encoding, transmission, and decoding, V-ANC
Video System:	D/A and A/D. Time-Base Correction for analog video. Genlock. Audio embedding/de-embedding
Video Inputs:	Composite, SDI (SMPTE-259M), Genlock
Video Outputs:	Composite, SDI (SMPTE-259M), Genlock
Encoding Latency:	Adjustable from 200 ms to 10 seconds
Video Post Filtering:	Advanced interlaced/progressive post filtering, including de-blocking, de-mosquito, and anti-aliasing
Video Pre-filtering:	Noise pre-filter, adjustable de-interlacing
Network Interfaces:	Ethernet
Network Protocol:	Multicast/unicast UDP and IP
Setup & Control:	Front access LCD panel and keypad. Solid-state Compact Flash storage for reliability and upgrades. VGA output, USB ports
Forward Error Correction:	Adjustable, Off or On from 1% to 50% Reed-Solomon, Parity, Shuffle
Options:	Store and Forward
Dimensions:	1 RU 1.75"H x 18.75"W x 17.5"D 4.4cm H x 47.6cm W x 44.5cm D
Weight:	17 lbs, 7.7 kg

About Streambox, Inc.

Streambox manufactures a complete line of video transport and newsgathering solutions used by broadcasters, government agencies, and enterprises worldwide.

We provide best-of-class encoding, decoding, and transmission over IP and satellite networks for all real-time and store and forward applications.

Learn more about our products and solutions at www.streambox.com.

Customers Include:

AOL

American Red Cross

Bell Canada

BELO

British Sky Broadcasting

CBS

CNN

Comcast

Department of Homeland Security

DIRECTV

Gannett

Japan Leisure Channel

Media General

MBC Korea

NASA

NBC Universal

NOAA

PCCW

PBS

Time Warner

Tribune

Turner Broadcasting

Univision

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