



Full-Duplex 1 RU Profile for  
HD/SD Broadcast Video

# SBT3-9400 SERIES

## Target Markets and Applications

HD/SD Video Conferencing • HD/SD Interactive Learning • HD/SD Bidirectional Video  
Worship HD/SD Video Backhaul • HD/SD Newsgathering • Sports and Event Broadcasting  
Film and Video Production • Video Post Production • Port and Airport Surveillance  
Video Conferencing • Multi-site Video Worship



The SBT3-9400 HD/SD Full-Duplex system provides superior performance and reliability due to the unrivaled ACT-L3 compression and networking features which include robust forward error correction, burst error protection, and bandwidth shaping technologies. The core feature of the SBT3-9400 system is its HD/SD full duplex mode which enables each unit to operate as an encoder and a decoder at the same time. The solution facilitates simultaneous transmission and receiving, making it ideal for real-time video conferencing purposes, including video depositions, interactive learning, telemedicine, factory monitoring, and bidirectional video worship.

The system's ability to encode, transmit, and playout either live or file-based HD or SD video streams coupled with its support for both digital and analog input/output formats sets the SBT3-9400 apart from other HD solutions. In addition, Streambox's integrated approach to HD/SD video transport enhances the system's flexibility and applicability to a variety of mission-critical operations.

The SBT3-9400 HD/SD system comes with a dual Gigabit Ethernet interface providing multiplex/demultiplex configurations for video stream redundancy. The second Ethernet port may be designated as a management port for instant access from anywhere. The integrated SBT3-9400 system works seamlessly with other Streambox products including Streambox's solutions for video management and playout. Benefits to users include: faster video transmission over a variety of low data rate IP networks, increased efficiency, and reduced streaming cost.

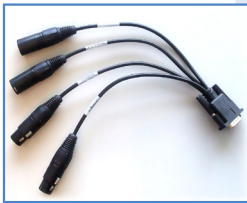
The Streambox Platform



**Earth-Touch**

## SOLUTION FEATURES

- Full duplex mode for simultaneous transmission and receiving
- Live and file-based HD 1080i/720p/1080psf and SD
- Unrivaled HD video quality from 512 Kbps - to 30 Mbps
- Unrivaled SD video quality from 64 Kbps to 15 Mbps
- Support for digital and analog HD/SD input and output formats
- Simultaneous output of HD and down-converted SD broadcast video from a single HD source
- Mitigate packet loss, network jitter, and buffering with robust forward error correction and advanced networking
- Adaptable to user defined data rate requirements
- Superior performance and reliability over low cost, low data rate IP networks
- Low power requirement
- Seamless local or remote system management via an easy-to-use web interface
- User configurable presets for quick flexible setup



## ENCODER



\* Redundant Power Supply Optional

### TECHNICAL SPECIFICATIONS

Video Formats:	HD: 190x1080i, 1440x1080i, 1280x1080i, 960x1080i, 1280x720p, 960x720p, 800x720p, 640x720p SD (NTSC): 720x480, 528x480, 480x480, 352x480, 352x240, 320x240 SD (PAL): 720x576, 528x576, 480x576, 352x576, 352x288, 320x288
Resolution/ Frame Rate:	59.94i, 50i; 1/2, 2/3, 3/4; Full resolution 3/4, 1/2, 1/5
Audio In (Encoder Only):	Analog 1+2: XLR, balanced Analog +24dBu (24-bit A/D); AES 1+2: XLR, balanced AES 24-bit 48 kHz HD: 1,2,4,6 Channel embedded SDI audio, 24-bit SD: 1,2 Channel embedded SDI audio, 24-bit
Audio Out:	Analog 1+2: XLR, balanced Analog +24dBu (24-bit A/D); AES 1+2: XLR, balanced AES 24-bit 48 kHz 1,2,4,6 Channel embedded SDI audio, 24-bit
Audio Encoding:	6-ch*, 4-ch*, 2-ch, 1-ch. AAC, GSM or CELP; 48 or 44.1 kHz
Video In (Encoder Only):	HD: BNC, HD-SDI SMPTE 292/296; SMPTE-259; Component: BNC, HD SMPTE (Y/Pr/Pb) (12-bit A/D) SD: BNC Composite - NTSC/PAL, SDI SMPTE-259
Video Out:	SDI 1: BNC, HD-SDI, SD-SDI (letterbox, crop, anamorphic); Composite: BNC
Fixed Output:	NTSC/PAL conversion and 720p or 1080i upconversion
Genlock In:	Black burst (Decoder Mode)
Color Profile:	4:2:0, 4:2:2
Closed Caption:	Line-21, decoding/encoding (NTSC SD only)
Video Post Filtering:	Advanced interlaced/progressive post filtering, including de-blocking, de-mosquito, and anti-aliasing
VANC:	Pass through of VANC EIA-608/708, SMPTE-334
Encoding Latency:	Adjustable from .2 seconds to 8 seconds
Bandwidth:	HD: Adjustable from 512 Kbps to 30 Mbps SD: Adjustable from 64 Kbps to 15 Mbps
Network:	LAN 1+2: RJ-45; Ethernet 10/100/1000 Mbps; IEEE 802.3ab, 802.3u, 802.3 Network Protocol: Multicast, Unicast UDP for IP, one-way broadcast and multiplex modes
Forward Error Correction:	Adjustable, 0% to 50%; Reed-Solomon, Parity, Shuffle
Jitter:	Packets order and timing correction (Decoder Mode)
Preset:	Easy preset, Network, video/audio, Interface
Remote Control:	Web interface and remote desktop
OS:	Windows® 7 Embedded
Interface:	VGA, LCD, USB
Front Panel:	LCD, key-switches
Breakout Cable: (Encoder Only)	Analog: Channel 1 in, Channel 1 out, Channel 2 in, Channel 2 out
Utility:	VGA: D-SUB, VGA connection for GUI; USB: Series A, USB 1.1/2.0 3-port
Options:	Store and Forward, IFB client (HD Encoder only); Redundant power supply, hot swappable
Power:	100-240 V AC, 180 W
Dimensions:	1 RU 1.77"H x 18.9"W x 20.67"D + connections; 4.5cm H x 48cm W x 52.5cm D
Weight:	25 lbs, 12 kg (with Redundant power supply)