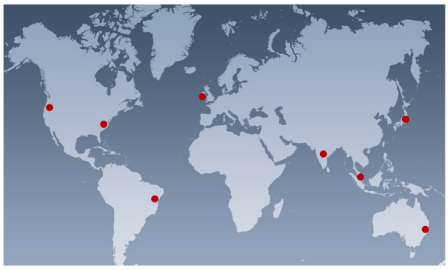
Drone Encoder Pro

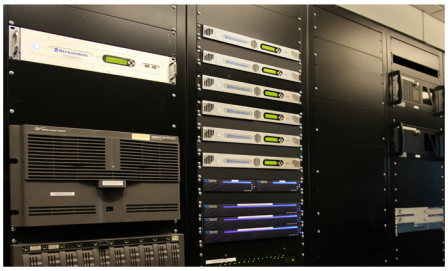
Ultra-Lightweight Encoding Solution for Live HD Video Contribution

The Streambox Drone Encoder Pro is an ultra-lightweight mobile broadcasting and live video encoder that provides enhanced bonded connectivity capabilities with significantly more efficient encoding for HD and SD broadcasting.



Deployment

The Drone Encoder Pro provides significantly more efficient encoding for HD and SD broadcasting. Works seamlessly with Streambox Enterprise Server or Streambox Cloud Services for larger deployments.



Infrastructure

The Drone Encoder Pro performs as a dedicated mobile encoder for live video transmissions using all available Internet connections (3G/4G, LTE, WiFi, LAN, BGAN, and USB WWAN Modems). The Drone Encoder Pro supports GPS tracking and remote mapping.

First/Last Mile

The Drone Encoder Pro bonds all available networks, employing Streambox exclusive LDMP technology to deliver reliable video with the lowest latency. Stream from the Drone Encoder Pro to your Streambox Enterprise Server or use Streambox Cloud Services to receive and route the video for playout.

Drone Encoder Pro Benefits

- New integrated mobile hardware built on Qualcomm® Snapdragon™ CPU
- HD-SDI & HDMI video capture integrated into mobile hardware
- Very low power consumption for extended battery life
- Small form factor, ultra-lightweight device weighing just 220 grams
- Supports external 3G/4G LTE modems

Advanced Streaming Codec

ACT-L3 Codec

All Streambox products are powered by our proprietary codec: Advanced Compression Technology – Level 3 (ACT-L3). Streambox ACT-L3 compression allows for faster encoding with lower latency and is optimized for video transmission over any low-bandwidth IP connection. Our proprietary codec is capable of compressing higher motion, complex video at lower data rates using the new advanced motion search feature.

Streambox LDMP Technology

All Streambox products come equipped with Streambox exclusive Low Delay Multi-Path technology (LDMP). Streambox LDMP protocol allows for low latency adaptive bit-rate streaming over public and private networks. Streambox Encoders will automatically select the best possible bandwidth, latency, and resolution over multiple IP networks, thus allowing Streambox products to gracefully handle network bandwidth fluctuations and dropouts, which are often seen over public or shared network environments.

AVENIRDrone Technical Specifications

Video Formats	HD: 1080i/59.94, 1080i50, 1080p24, 1080p25, 1080p30, 720p/59.94, 720p/50; SD: (NTSC): 525i/59.94, (PAL): 576i/50 HD to SD downconvert is supported.
Video Encoding	HD and SD: 1920, 1440, 1280, 960x1080, 1280, 960, 800, 640x720, 1920x540; SD: 720, 528, 480, 352x480, 320x240, 720, 528, 480, 352x576, 320x288, 720x240, 720x288
Video Processing	Compression: Streambox ACT L3 AP (Advanced Profile) Video Post-Filtering: Interlaced/Progressive post filtering, including de-blocking, de-mosquito, and anti-aliasing
Video In	HD/SD-SDI (BNC) and HDMI (Full size, Type A)
Audio Formats	AAC Stereo and Mono, CELP, GSM 1-channel
Audio In	Stereo, 2-channel embedded SDI Audio, HDMI Audio
IFB Audio Support	IFB over Bluetooth 4.0 or USB audio dongle (up to 12 channels)
Network Interfaces	1x Gigabit Ethernet 2x USB 3.0 4x USB 2.0 (with optional breakout cable) WiFi (2.4 GHz, 5 GHz, 802.11 a/b/g/n) with High gain antenna array for Dual-WiFi Antenna Support for up to 6 external USB MODEM Bluetooth 4.0 Second Control WiFi USB dongle (option) (2.4 GHz 802.11 n) Modem module (option): Up to 4 embedded/USB 3G/4G/LTE MODEM*
Network Protocols	UDP or LDMP 2.0 (Low Delay Multipath Protocol) Up to 32 dynamic network interface bonding Forward Error Correction: Reed-Solomon, Parity, Shuffle; adjustable from 0 to 50% Supports Streambox Enterprise and Cloud Servers, Decoders or Media Players
Metadata	End-user selectable: Title, Reporter, Location, GPS
Color Profile	4:2:0, 4:2:2
User Interface	Front LCD screen. 4 LED beacons for status of video, network, streaming and alert. Remote control via WiFi hotspot. Direct web remote control via local or Internet IP.
GPS	Supported with GPS enabled modem or addon USB module. Google mapping and NMEA supported.
Connectors	2x USB 3.0, BNC (for SDI in), RJ45, DC Jack, HDMI-In (Type A) , OTG (service via Micro USB 2.0), 30-pin extension connector (supports USB 2.0, RS-232, I2C and 12 VOC)
Storage and file Record	Built-in 16GB eMMC. Expandable with Micro SD slot. Store and Forward Client with Streambox Cloud and Decoder Support.
Operation	Front panel buttons for system information, Start/Stop function & custom presets Web user interface for remote and advanced settings User selectable delay from sub second up to 14 seconds Store & Forward to Enterprise Server and S&F Decoder
Physical	Micro (Aluminum): 126mm W x 128mm D x 30mm H. Wt: 0.5kg (1.1lbs) Drone (Plastic): 126mm W x 121mm D x 30mm H. Wt: 0.4kg (0.9lbs) Top camera mount screw adapter (⅜" - 16 to ¼" - 20 bushing)
Power	DC7-17V 10W with WiFi or LAN connection, up to 17W with multiple MODEM AC Adapter 100-240V 50/60Hz, DC12V, Max.24W Battery Module - 1 - 10 hrs (depending on battery type and usage), 7V - 17V
Accessories	AC Adapter (provided with unit) DC Vehicle Adapter (optional) Streambox Signal Extender (SSE) - SSE 1.6, SSE 4 USB, SSE 10 USB, SSE 2.0 (optional) USB MODEM Module - Top Mount up to 4 USB 3G/4G/LTE modems with Battery slots (optional) USB MODEM Module - Side Mount up to 4 USB 3G/4G/LTE modems with Battery slots (optional) Embedded MODEM Module - Up to 4 embedded 3G/4G/LTE modems (optional) Anton Bauer Battery Module - 2,000 to 10,000 mAh (optional)

* Available early 2016

All specifications are subject to change without notice.