

# STREAMHUB



## VERSATILE TRANSCEIVER PLATFORM



The AVIWEST's STREAMHUB is the iconic transceiver platform that is compatible with all the AVIWEST live video encoders and transmitters: PRO series, RACK series, AIR Series, HE series, MOJOPRO Series as well as third party systems, such as IP cameras, especially through its RESTfull API. Its intuitive web user interface enables to easily control and manage a fleet of remote units, optimize and monitor the video transmissions thanks to a large panel of features, such as a video thumbnails, and statistics.

The AVIWEST's STREAMHUB is a Linux-based feature-rich high performance transceiver that has been designed to meet the demanding requirements of broadcasters deploying video contribution systems over unmanaged IP networks. The HEVC / 4K (UHD)-compliant platform can be deployed on-premises or operated as a cloud-based solution to enable quick and cost effective launch of new video services while reducing CAPEX and OPEX.

## KEY FEATURES

### VIDEO RECEIVER, ENCODER AND DECODER

The STREAMHUB packs a rich set of input IP protocols and can receive up to 16 concurrent incoming streams from remote AVIWEST encoders or transmitters (PRO, RACK, AIR, HE, MOJOPRO) or third party systems through RTMP, RTSP/RTP, SRT, NDI, HLS, TS/IP streaming protocols. Up to 8 videos can be simultaneously decoded thanks to 8 SDI outputs with a Genlock input. It also features video encoding and transcoding capability, allowing to adapt incoming feeds to the desired output format.

### POINT TO POINT AND POINT TO MULTIPOINT DISTRIBUTION

The STREAMHUB offers multiple output streaming protocols (AVIWEST's SST, RTMP, RTMPS, RTSP/RTP, HLS, TS/IP, SRT, NDI) allowing video contents to be freely distributed over virtually any IP networks. Up to 32 IP outputs are supported to re-stream the video contents over LAN or WAN to CDNs, Media Servers, Streaming Platforms, Social Networks, IRDs or other STREAMHUBs.

### VIDEO RECORDER AND TRANSCODER

The STREAMHUB combines the functions of a video recorder and implements a file transcoder that enables video professionals to efficiently adapt video formats and resolutions according to each outputs constraints.

### STORY CENTRIC & METADATA

The STREAMHUB application is able to automatically manage missions & metadata to guaranteeing the perfect integration with news production workflow. In this way, broadcasters can quickly and efficiently identify their contents.

### IP DATA BRIDGE

The STREAMHUB is the Gateway for IP Data Bridge that provide access to public Internet from the field. Optimized for Remote Production workflows, it also allows remote control of IP based devices such as PTZ cameras.

### IFB APPLICATION

The STREAMHUB includes an IFB application that enables broadcasters to communicate with remote transmitter operators over up to 16 independent two-way audio channels.

### MULTI-VIEW

The STREAMHUB application function a grid of video thumbnails that allow broadcasters to play out up to 16 incoming streams (4 x 4 with a custom layout) on a single monitor. Video professionals can define audio sources and output standards and add information overlay for each sources.

# STREAMHUB MAIN SPECIFICATIONS

## PLATFORM

<b>PHYSICAL</b>	1 RU server platform
<b>SOFTWARE</b>	Linux 64-bit server
<b>VIRTUALIZED</b>	Available as a Virtual Machine or Docker Instance Running on AWS, Google Cloud, or any public/private cloud

## VIDEO

<b>RESOLUTIONS</b>	4K/UHD: 25/29.97/30/50/59.94/60 HD: 1080p 25/29.97/30/50/59.94/60 1080i 50/59.94/60 720p 25/29.97/30/50/59.94/60 SD: PAL, NTSC, 480p, 576p
<b>DECODING</b>	Codec: H.264/AVC (4:2:0 8bits), H.265/HEVC (up to 4:2:2 10bits) Bitrate : 100 kbps up to 160 Mbps Regulation mode: VBR and CBR Up to 8x HD or 1x 4K decoding [StreamHub ULTRA]
<b>ENCODING</b>	Codec: h.264/AVC 4:2:0 8bits Bitrate : 100 kbps up to 20 Mbps Regulation mode: CBR Up to 8 HD live encoding [StreamHub ULTRA]
<b>PROCESSING</b>	Video Down-scaling & Upscaling Deinterlacing

## AUDIO

<b>DECODING</b>	AAC-LC, AAC-HE v2, MPEG-1 L2, OPUS
<b>ENCODING</b>	AAC-LC, MPEG1-L2, OPUS

## STREAMING PROTOCOLS

<b>INPUTS</b>	TS/IP (SPTS), RTSP/RTP, RTMP push and pull, HLS, SRT, IP Bonding (AVIWEST SST), NDI
<b>OUTPUTS</b>	TS/IP (SPTS), RTSP/RTP, RTMP, RTMPS push and pull, HLS, SRT, IP Bonding (AVIWEST SST), NDI

## ADVANCED FEATURES

Metadata support for Live and Forward  
SIP-based and legacy intercom  
AVIWEST SST protocol  
IP Data Bridge Gateway  
MPEG2-TS and MP4 recording  
Transmuxing stream processing  
Streaming to all major Social Media Platforms (Youtube, Facebook, Twitch,...)  
Multi-view output  
Video Return Management

## PHYSICAL INTERFACES

<b>STREAMHUB LITE</b>	Dual GigE network interfaces 1x 3G-SDI or 1x HDMI output
<b>STREAMHUB STANDARD</b>	Dual GigE network interfaces 4 x 3G-SDI outputs (SD/HD) with genlock
<b>STREAMHUB ULTRA</b>	Dual GigE network interfaces Up to 8 x 3G-SDI outputs or 4 x 12G-SDI outputs with genlock

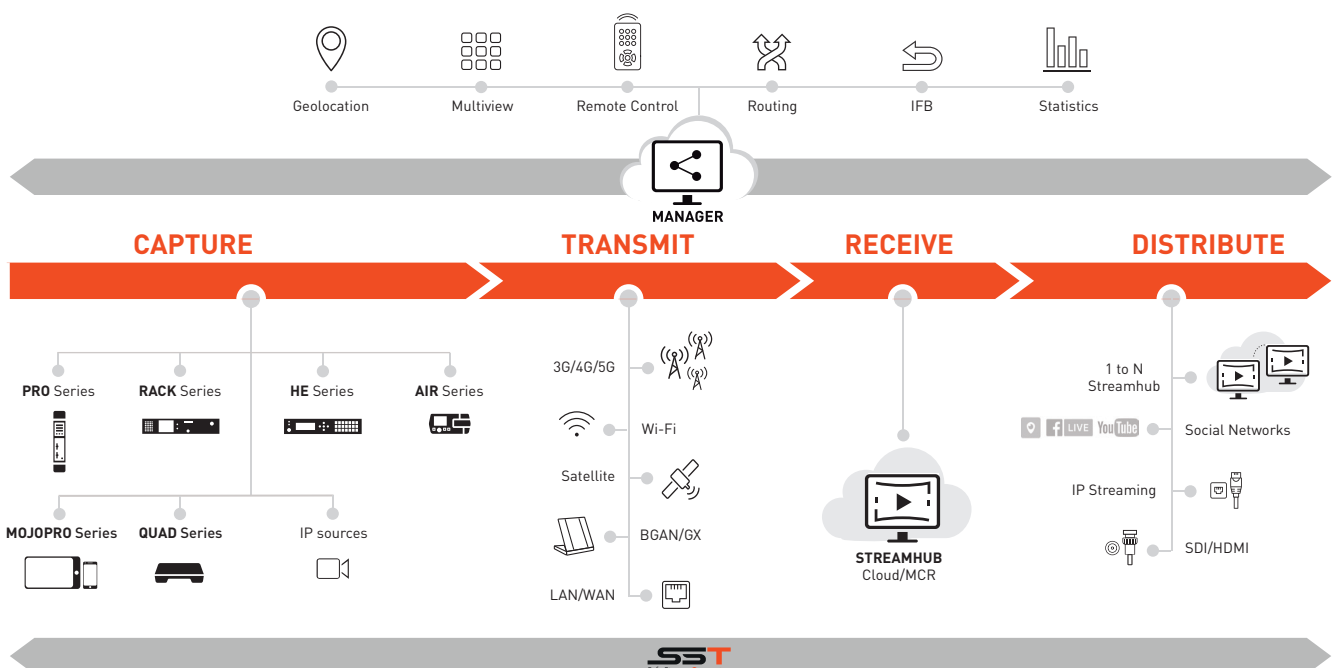
## MONITORING

Web-based GUI  
Comprehensive RESTfull API for third-party Management System integration  
Integrated with AVIWEST MANAGER

## POWER

Redundant power supply

# SYSTEM OVERVIEW



AVIWEST continuously improves its products portfolio and reserves the right to modify the specifications without prior notice.