

# 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 the platform 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, HLS, TS/IP streaming protocols. It also features a 3G-SDI input enabling SD, HD video encoding and thereby provide a video return to the remote field unit. Up to 4 videos can be simultaneously decoded thanks to 4 SDI outputs with a Genlock input.

### 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) 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 software encoder 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 the news production workflow. In this way, broadcasters can quickly and efficiently identify their contents.

### IP DATA HOTSPOT

The STREAMHUB is also the Gateway for field units IP Data Hotspot feature that allow access to public Internet from the field.

### 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. Both SIP-based and legacy IFB intercom are supported.

### 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

|          |                       |
|----------|-----------------------|
| PHYSICAL | A1-RU server platform |
| SOFTWARE | Linux 64-bit server   |

## VIDEO

|             |  |
|-------------|--|
| RESOLUTIONS | 4K/UHD: 25/29.97/30/50/59.94/60<br>HD: 1080p 25/29.97/30/50/59.94/60<br>1080i 50/59.94/60<br>720p 25/29.97/30/50/59.94/60<br>SD: PAL, NTSC, 480p, 576p |
|-------------|--|

|          |   |
|----------|---|
| DECODING | Codec: H.264/AVC 4:2:0 8bits and H.265/HEVC 4:2:2 10bits<br>Bitrate : 100 kbps up to 200 Mbps<br>Regulation mode: CBR |
|----------|---|

|          |  |
|----------|--|
| ENCODING | Codec: h.264/AVC 4:2:0 8bits<br>Bitrate : 100 kbps up to 20 Mbps<br>Regulation mode: VBR and CBR |
|----------|--|

|            |   |
|------------|---|
| PROCESSING | Video Down-scaling & Upscaling<br>Deinterlacing |
|------------|---|

## AUDIO

|          |                                       |
|----------|---------------------------------------|
| DECODING | AAC-LC, AAC-HE v2 and MPEG-1 L2, OPUS |
|----------|---------------------------------------|

|          |                        |
|----------|------------------------|
| ENCODING | AAC-LC, MPEG1-L2, OPUS |
|----------|------------------------|

## 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  
RESTfull API  
Multi-view output

## INTERFACES

Up to 4 x 3G-SDI (bidirectional I/O) or 1 x 12G-SDI  
Up to 4 SD-HD or 1 UHD (4K) SDI outputs  
Dual GigE network interfaces:  
- Dual port NIC adapter  
- Up to 1 Gbps in  
- Up to 1 Gbps out  
- Unicast and multicast  
1x HDMI output

## STREAMING PROTOCOLS

|        |  |
|--------|--|
| INPUTS | TS/IP (SPTS), RTSP/RTP, RTMP push and pull,<br>HLS, IP Bonding (AVIWEST SST) |
|--------|--|

|         |   |
|---------|---|
| OUTPUTS | TS/IP (SPTS), RTSP/RTP, RTMP, RTMPS push and pull<br>HLS, SRT, IP Bonding (AVIWEST SST) |
|---------|---|

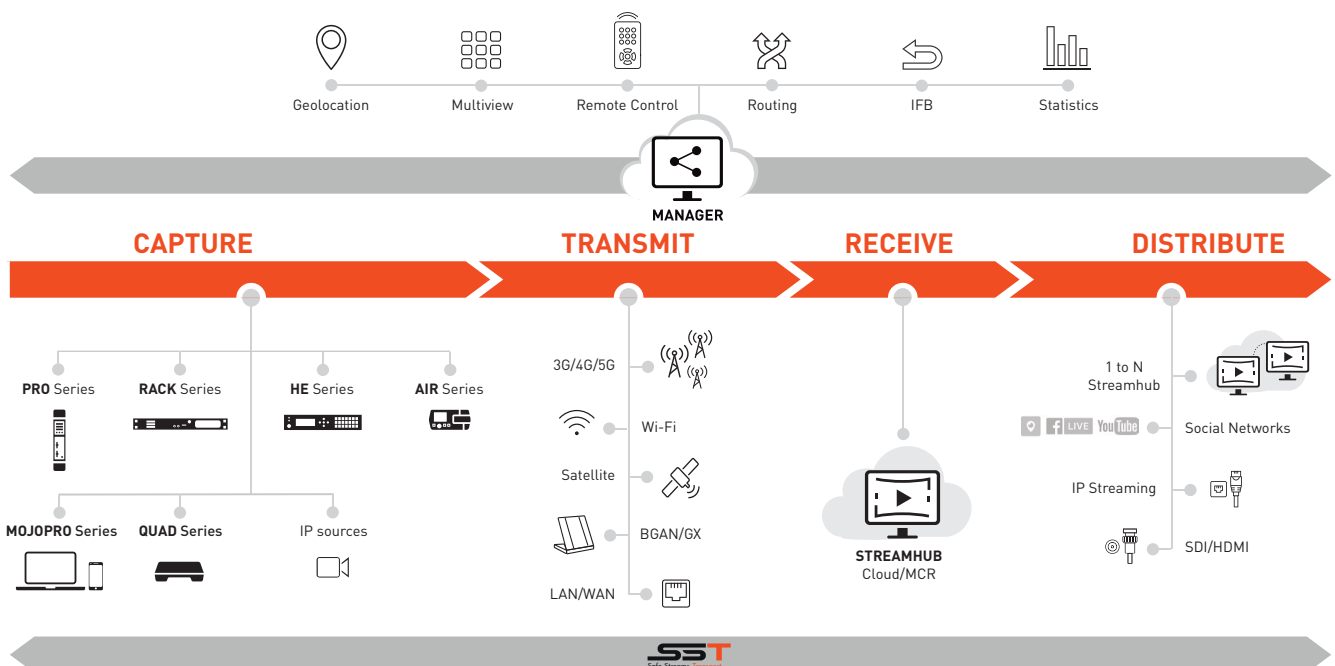
## MONITORING

Web-based GUI  
Integrated with MANAGER

## POWER

Redundant power supply

# SYSTEM OVERVIEW



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