

# PRO460



**SST**  
Safe Streams Transport

## 4K UHD & MULTI-HD ENCODER OVER BONDED CELLULAR NETWORKS



The PRO460 is our latest generation of mobile video encoder and transmitter designed for live video producers (sports, concert, etc.) and news gathering professionals looking for video delivery performance from any location around the world. **Multi-camera production in HD** or single pristine **4K UHD** capabilities are combined with mission-critical transmission in this **5G** compliant solution.

With its compact form factor, the PRO460 supports the upmost generation of UHD H.265/HEVC hardware encoder by offering premium video quality with optimized data usage and **low end-to-end latency** (down to 0,5 sec). The widely adopted H.264/AVC format is still supported for compliancy with deployed infrastructures. Our innovative design enables multiple encoding and transmission workflows from single HD source for News, to multiple HD sources (up to 4) for sports, through single 4K UHD for premium events coverage.

With PRO460, all required features for **Remote Production** or **At-Home Production** workflows are fulfilled. As first, it supports a perfect video synchronization and lip sync across multiple cameras in the venue to guarantee seamless camera switching and efficient video editing in the remote production studio. As second, our solution enables remote control of network-based devices such as PTZ cameras and tally lights. Our solution is camera agnostic and runs simultaneously with the live transmission. In addition, the PRO460 supports low delay and high-quality video delivery from the studio to the field units. Also known as Video Return, this feature allows delivering teleprompting information or studio feed to the field. At least, bi-directional audio intercom is available for communication between the field and the studio.

The PRO460 embeds **6 world-wide compliant 3G/4G/5G cellular modems** with high efficiency custom patented antennas. The transmission can also operate on other networks such as WiFi, BGAN satellite, Ka or Ku band satellite, IP leased line or simply the Internet. It is made possible thanks to our **Emmy® awarded SST Technology** (Safe Stream Transport). This technology offers advanced techniques of networks aggregation, Adaptive packet Retransmission (ARQ) and Forward Error Correction (FEC) to reach the upper networks throughput and maximize the Quality of Services.

Available in a compact ruggedized enclosure, the PRO460 offers standard V-Mount or Gold-Mount plate for direct mounting on professional cameras, but also comes with a smart designed backpack.



### SIMPLE

The PRO460 has been designed with ease-of-use in mind, the user-friendly intuitive interface allows broadcasting live videos in 2 touch screen taps.



### VERSATILE

Single 4K UHD sources or Quadruple HD sources transmission are supported without extra or hidden licenses. The PRO460 is the affordable all-in-one solution for video production requiring mobility, remote access and flexibility regarding the field conditions.



### HIGH PERFORMANCE

By implementing the best state-of-the-art H.265/HEVC hardware encoder in a compact design enclosure, the PRO460 enables video professionals to provide seamless high quality news and event coverage.



### ANY NETWORKS

Leveraging Emmy® award winning AVIWEST's SST protocol, an intelligent IP bonding stack and powerful contribution network protocols, the PRO460 ensures the delivery of live video even in the midst of unpredictable and unmanaged network conditions.

# MAIN FUNCTIONS

## PREMIUM 4K UHD LIVE

You want the highest-quality video performance and we offer the latest generation of HEVC encoder for pristine HD and UHD video transmission. Built on AVIWEST doubly awarded SST bonding technology, the unit reaches up to 80Mbps HEVC live video encoding.

## MULTI-CAMERA REMOTE PROD

Move your Remote At-Home Production to the next level with four frame-synced HD feeds combined with remote control of any IP-based equipment. It is possible wherever you are in the field, thanks to our superior 4G/5G performances supported by 6 internal modems and high-efficiency internal antennas.

## IFB & VIDEO RETURN

Ensure two-ways audio communication between the producer, production crews & on-air talent thanks to a seamless and robust intercom. Receive and watch high quality HD feed from the Studio during live sessions or when the device is idled. With sub second latency delivery, it is especially designed for receiving on-air program, teleprompting information or ensuring confidence monitoring from the field.

## REC & PROGRESSIVE FORWARD

Record UHD/HD broadcast-grade quality video on the SD card, and optimize your time by forwarding the file progressively whereas the record is still in progress. This forward approach enables fast and error-free video delivery.

# MAIN SPECIFICATIONS

## VIDEO

STANDARDS	UHD: 2160p60/59.94/50/30/29.97/25 HD: 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50
DENSITY	Single UHD/HD Quadruple HD
ENCODING	H.265/HEVC 4:2:0/4:2:2* 8-bit, 10-bit* H.264/AVC 4:2:0, 8-bit Dynamic resolution adjustment HDR10* and HLG*
BITRATES	2 Mbps to 80 Mbps for UHD 300 Kbps to 20 Mbps for HD Constant Bitrate (CBR) Variable Bitrate (VBR)
INPUTS	SDI

## AUDIO

ENCODING	AAC-LC
BITRATES	32 Kbps to 256 Kbps
MODE	Mono, Stereo
DENSITY	Up to 4 Mono or up to 4 Stereo
INPUTS	Embedded over SDI

## NETWORK CONNECTIONS

INTEGRATED MODEM	6 x 3G/4G/5G world-wide compliant modems - Sub 6GHz bands - SA (Stand Alone) and NSA (Non Stand Alone) - Internal high efficiency antennas
ETHERNET	2 x Gigabit Ethernet ports - LAN, WAN - portable satellite [BGAN, GX, Ka & Ku Band]
WI-FI	Dual band Wi-Fi modem 802.11b/g/n/ac (2.4GHz and 5 GHz) - Client & Hot Spot modes - High-efficiency embedded antenna

## ADVANCED FEATURES

Dual encoding for simultaneous Live & Record (single HD mode)  
Sub second glass-to-glass latency (down to 500 ms)  
Video and Audio level preview  
Intercom/IFB  
Video return from Studio (full HD, sub-second latency)  
Automatic Live Start  
Networks Links priorities (user configurable)  
Data Bridge for switching the device as mobile router  
Simultaneous Live and IP traffic (for remote camera control)  
Geolocation (GPS)

## INTERFACES

1 x 12G/3G-SDI input and 3 x 3G-SDI inputs (BNC)  
1 x 12G-SDI output (BNC)  
1 x HDMI 1.4 output  
1 x GenLock input (BNC)  
2 x RJ-45 Ethernet  
2 x USB 3.0 (type-A), 1 x USB 3.0 (type-C)  
6 x micro SIM slots  
1 x mini jack for IFB/intercom headset  
1 x micro SD card slot

## CONTROL & MONITORING

Embedded touch screen  
Web UI (through laptop, smartphone, etc.)  
From AVIWEST STREAMHUB transceiver

## POWER

**POWER SUPPLY** DC input 18V  
External battery with V-mount or Gold-mount plates

**CONSUMPTION** 4 hours with battery (90 Wh)

## PHYSICAL

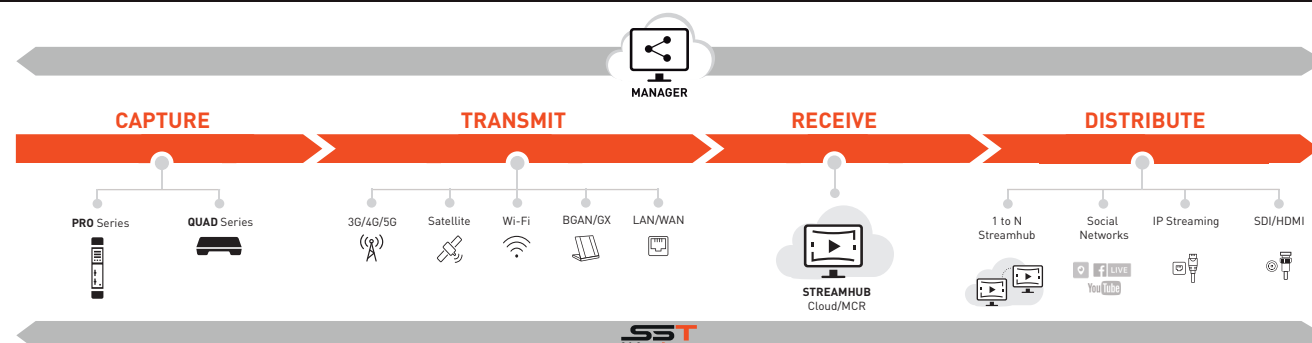
**DIMENSIONS (W x H x D)** 26,6 cm x 8,4 cm x 12,5 cm  
(10.47" x 3.30" x 4.92")

**WEIGHT** 1.5 Kg / 3.3 lbs

**OPERATION TEMPERATURE** 0°C to 45°C (32°F to 113°F)

\* H1 2022 support (firmware upgrade)

# SYSTEM OVERVIEW



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