## Live HD Video Over Bonded Cellular Networks

The Haivision Pro3 series of transmitters are designed for live sports, entertainment, and news gathering professionals contributing high quality video content from any location. Supporting a wide range of input and output interfaces, the Pro3 Series is a versatile real-time encoder and mobile transmitter delivering pristine quality video at very low latency. With H.265/HEVC live content can be encoded with low bandwidth consumption while the H.264/AVC support ensures compliancy with all types of broadcast production workflows.

Haivision Pro3 transmitters include globally compliant cellular modems with a patented custom antenna array: up to up to six 3G/4G/5G or eight 3G/4G modems can be supported for cellular bonding with the Emmy award winning SST protocol.

When operating in environments with challenging cellular network connectivity, Pro3 transmitters can leverage external antennas and modems including the passive Haivision Quad or active (embedded 3G/4G modem) Haivision Quad CellLink. Built-in Wi-Fi and Dual Gigabit Ethernet can also be used to stream over LAN/WAN, while BGAN, GX and Ka band satellite bands are also supported.

Powerful but energy efficient, the Pro3 series can operate up to 4 hours with an external battery, making it the ideal companion for on-the-go video professionals that need a robust and reliable solution for high quality video broadcasting.





### Simple

Extremely user-friendly with an intuitive touch-screen interface enabling camera operators to begin broadcasting live video with just 2 taps.



### Versatile

The Haivision Pro3 Series offers standard V-Mount or Gold-Mount plates for direct mounting on professional cameras or for easy transport with its specially designed backpack.



### **High Performance**

By implementing a low latency H.265/HEVC hardware encoder in a compact design enclosure, the Pro3 Series enables video professionals to provide seamless and pristine video for news and events coverage.



### **Any Network**

Leveraging the Emmy® award winning SST and SRT protocols, the Pro3 Series can reliably transmit high-quality broadcast contribution video over bonded cellular and IP networks with fluctuating conditions.

	Pro360-5G	Pro380	Pro340
Embedded cellular modems	6	8	4
Cellular networks	5G/4G/3G	4G/3G	4G/3G

# **Main Functions**

Live Video Encoding Broadcast pristine quality live video over bonded IP networks with low latency: 3G/4G/5G, Ethernet, Wi-Fi, BGAN, GX and Ka satellite bands.

**IFB & Video Return** Ensure two-way audio communication between camera operators, production crews & on-air talent with advanced intercom features. Receive and watch high quality HD feeds 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.

**Auto-Record and Progressive Forwarding** You can simultaneously stream live video while recording to an SD card with different resolutions and bitrates to ensure an optimal and constant video quality. Forward file recordings while recording is in progress, enabling quick and efficient broadcast production and creating a backup in the case of transmission interruption.

Data Bridge Leveraging the transmitter's aggregated networks connections, a Pro3 unit can be used as a mobile router providing high-speed internet connectivity from anywhere.

### **VIDEO** Standards HD: 1080p60/59.94/50/30/29.97/25 1080i60/59.94/50 720p60/59.94/50 SD: PAL, NTSC Encoding H.265/HEVC 4:2:0, 8-bit H.264/AVC 4:2:0, 8-bit Dynamic resolution adjustment Bitrates 200 Kbps to 20 Mbps for HD Constant Bitrate (CBR) Variable Bitrate (VBR) Inputs SDI, HDMI **AUDIO** Encoding AAC-LC **Bitrates** 32 Kbps to 256 Kbps Mode Mono, Dual Mono, Stereo 2.0 Density Up to 4 Channels Inputs Embedded (SDI, HDMI), Analog (L/R) **NETWORK CONNECTIONS** Cellular 6 x 3G/4G/5G, 4 or 8 x 3G/4G world-wide compliant modems with - Internal high efficiency antennas - External high efficiency Haivision Quad antenna array IPv4 and IPv6 compliant Ethernet Gigabit Ethernet ports - LAN, WAN - portable satellite (BGAN, GX, Ka & Ku Band) Wi-Fi Dual band Wi-Fi modem 802.11a/b/g/n/ac (2.4GHz and 5 GHz) - Client & Hot Spot modes - High-efficiency embedded antenna Transport Protocol SST over Cellular/Ethernet/WiFi (bonding) SRT over Ethernet

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ADVANCED FEATURES
Video Encoding
  Dual encoding for simultaneous Live & Record
Streaming
  Sub second glass-to-glass latency (down to 500 ms)
   AES encryption of live broadcasts
  IP Data Bridge for using the device as a mobile router
  Prioritize Network Links (user configurable)
Recording
  Transport Stream and MP4 file formats
Automatic file forwarding
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Video Returns Full HD video return Sub-second latency AES encryption Return feed generation
User Interface and Operations Video and Audio level preview

Remote dynamic latency adjustment during a live broadcast Automatic Live Start

Intercom/IFB Bluetooth or wired headset Metadata Geolocation (GPS and Galileo)

Audio

INTERFACES 1 x 3G-SDI input, 1 x 3G-SDI output (BNC) 1 x HDMI 1.4 input, 1 x HDMI 1.4 output 2 x RJ-45 Ethernet 1 x USB 3.0 (type-A)

4/6/8 x micro SIM slots 1 x mini XLR for IFB/intercom headset 2 x mini XLR balanced (for analog audio) 1 x SD card slot

**CONTROL & MONITORING** Embedded touch screen Web UI from any browser From Haivision StreamHub transceiver From Haivision Manager

**POWER** Power Supply DC input 18V (XLR input hot swap) External battery with V-mount or Gold-mount plates Consumption 4 hours with battery (90 Wh)

**PHYSICAL** Dimensions (W x H x D) 25,6 cm x 8,4 cm x 12,5 cm (10.07" x 3.30" x 4.92") Weight 1.4 Kg / 3.09 lbs Operating Temperature -5°C to 45°C (23°F to 113°F)

Software Version: 6.0