

# **HCAM**

# **HEVC 4K UHD Camera Transmitter**

**HEVC Compression** 

Single-frame latency

**Live Event Coverage** 

The Vislink HCAM leads the next generation of lightweight and highly portable wireless systems designed to capture live footage from breaking news, entertainment and sporting events.

VISLINK

At the heart of the action.

With support for HEVC 4K UHD and HDR, the HCAM wireless camera transmitter delivers unprecedented image resolution and clarity. It allows operators freedom of movement to capture the immersive images that viewers crave, enabling audiences to get up close and personal at the heart of the action.



The HCAM transmitter is fully interoperable with the Vislink FocalPoint, a wireless camera control system that provides comprehensive functions for controlling multiple camera and operator control panel combinations.

HCAM also helps facilitate the transition from OFDM to 5G technology for live event deployments. By incorporating the optional HCAM Module 5, a 5G edge device for Vislink HCAM OFDM systems, users can leverage 5G to drive new creativity and operational flexibility — while allowing a transition of service offerings at the pace that is right for them. It also maintains their ability to provide the highest quality video, lowest latency and guaranteed RF robustness.

HCAM offers flexibility with highly configurable mounting options and video interfaces, also providing a complimentary range of user interchangeable RF modules and software options, for use with:

- Broadcast cameras for sporting events
- ENG cameras for news gathering
- Prosumer cameras for the ultimate application flexibility

## **Key features**

- HEVC 4K UHD Very Low Latency Encoder
- HDR
- Interchangeable, future-proof, dual SFP modules supporting SDI/HDMI/Fiber Optic
- Interchangeable RF module for quick & easy frequency change
- o Integrated Camera Control with FocalPoint Compatibility
- Optional direct-docking V-Lock & Anton Bauer battery plates with integral power feed through
- Remote control over WiFi via web interface

# Typical applications

- Event Coverage
- Newsgathering
- o Sports Coverage
- PoV Cameras



# **Specification RF Parameters** 1.950-2.700 GHz\* Frequency Band 3.200-3.900 GHz\* 4.400-5.000 GHz 6.425-7.125 GHz 6.800-7.500 GHz 7.200-7.750 GHz \*pre-distortion correction Transmit Power Adjustable 10 to 250 mW up to 3.9 GHz\* Adjustable 10 to 100 mW above 3.9 GHz\* \*or add Barrel Booster option1 Frequency Selection Manual selection & 16 pre-set channels DVB-T Modulation LMS-T **UHF** Receiver 410 to 490 MHz frequency range FocalPoint camera control compatibility **Modulation Modes** QPSK, 16QAM, 64QAM FEC: • 1/2, 2/3, 3/4, 5/6, 7/8 Guard interval: • 1/32, 1/16, 1/8, 1/4 Data Rate DVB-T 4.98 to 31.7 Mbit/s LMS-T 2.90 to 43 Mbit/s, bandwidth dependent (licensed option) Bandwidth DVB-T bandwidths of 6/7/8 MHz LMS-T bandwidths of 3/4/5/6/7/8/10/ 12/14/16/20 or 24 MHz\* with two carrier density options Digital pre-distortion forenhanced adjacent channel performance\*\* \*Licensed option \*\*Frequency permitting **Video & Audio Parameters** Video Encoder Profiles HEVC (H.265) UHD, HD & SD Main, Main 10, Main 4:2:2 10 4K Native and UHD (1 Service) HD (Up to 4 Services)5 SD (Up to 4 Services)5 MPEG-4 AVC (H.264) HD & SD Main, High, Baseline up to Level 5.2, High 10/High 4:2:2 MPEG-2 (H.262) HD & SD



Video Inputs

4:2:0 8 bit, up to 1080i60

2 SFP+ module slots supporting electrical and optical interfaces

### **Specification**

Video Formats

480i@29.97 576i@25 720p@50/59.94/60 1080i@50/59.94/60 1080p@23.98/24/25/29.97/30/50/59.94/60 2160p@23.98/24/25/29.97/30/50/59.94/60

**Audio Inputs** 

Embedded audio over SDI/HDSDI/3G SDI/6G SDI/12G SDI
1x analogue audio stereo pair configured as Mic/Line level
Mic/Line level support with phantom power

Audio Encoding

AAC (AAC-LC & HE-AAC) MPEG-1 (Layer 1 & Layer 2) Dolby E Passthrough Linear PCM Passthrough

Latency

Single frame (4K UHD/1080p)<sup>2</sup>

Scrambling

BISS-1 BISS-E Injected BISS-E Buried ID

#### Connectors

Connectors

2x SFP+ module slots supporting electrical and optical interfaces carrying<sup>6</sup>:

4x SDI SMPTE-259M
4x HD-SDI SMPTE-292M
4x 3G-SDI SMPTE-424M
2x 6G-SDI SMPTE-2081
1x 12G-SDI SMPTE-2082
Power Connector:
2-pin LEMO socket
Audio Connector:

5-pin LEMO socket Camera Cont. & ASI Connector: 7-pin LEMO socket

Data & Tally Connector: 3-pin LEMO socket

Ethernet Control Connector: RJ45 10/100

USB Connector: Micro-AB USB 2.0 RF Output Connector: 50 Ω N-Type (M)

UHF Input Connector:  $50 \Omega$  SMA (F)

## Flexibility & Power Supply

Power

Extended operation voltage range, 10V to 32.2V DC
Power connector to connect to D-Tap power source
Can be powered with optional IDX or Anton Bauer battery plates

**Power Consumption** 

35W max.



#### **Specification**

ASI Input for service multiplexing (Remux)
Output
Input and Output on multifunction connector

PIDS PIDs user configurable

User Interface

OLED display for enhanced visibility

Ethernet control via internal webserver

WiFi connectivity & control via internal webserver

Optional Licenses

HCAM-LICE-0001 - HCAM License Service 1 4K UHD HEVC Encode

HCAM-LICE-0002 - HCAM License Service 2 HD 1080p HEVC Encode

HCAM-LICE-0003 - HCAM License Service 3 HD 1080p HEVC Encode

HCAM-LICE-0004 - HCAM License Service 4 HD 1080p HEVC Encode

HCAM-LICE-0007 - HCAM License H.264 Encode

HCAM-LICE-0009 - HCAM License Variable Bandwidth LMS-T

HCAM-LICE-0010 - HCAM License UHF Rx Camera Control HCAM-LICE-0011 - HCAM License BISS Scrambling

**Physical & Environmental** 

Size & Weight 165 (L) x 43 (H) x 82 (W) mm<sup>3</sup> 600g<sup>4</sup>

Environmental Operating Temperature: 0°C to 50°C (32°F to 122°F)

Notes:

- Some features specified are available via optional licenses.
- Not all encoder interface options are concurrently available.
- We reserve the right to change specifications at any time without prior notice.
- $\bullet$   $^{1}$  We recommend using the optional D-TAP cable to power the Barrel Booster.
- <sup>2</sup> End to end latency including RF, with ULRX-LD Rx.
- <sup>3</sup> Including removable heatsink mounts, excluding RF connectors.
- 4 Including removable heatsink, excluding antennas.
- $\bullet$   $^5$  HD & SD Services 2 to 4 can be enabled via optional licenses.
- 6 Unit supplied with 2x 3G-SDI SFP+ modules.

