

HCAM

HEVC 4K UHD
Camera Transmitter



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.

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 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](#)

[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](#)

[Sports Coverage](#)

[PoV Cameras](#)

Technical Specifications	
RF Parameters	
Frequency Band	• 1.300–1.700 GHz* • 1.950–2.700 GHz* • 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 <i>*includes pre-distortion correction</i>
Transmit Power	Adjustable 10 to 250 mW up to 3.9 GHz*; Adjustable 10 to 100 mW above 3.9 GHz* <i>* or add Barrel Booster option (recommended use of optional D-TAP cable to power Barrel Booster.)</i>
Frequency Selection	Manual selection & 16 pre-set channels
Modulation	• LMS-T • DVB-T • ISDB-T* • DVB-T2** <i>*Licensed option</i> <i>**Upon request & licensed option</i>
Modulation Modes	LMS-T: - Modulation: QPSK, 16QAM - FEC: 2/3 - Guard interval: 1/8, 1/16 DVB-T: - Modulation: QPSK, 16QAM, 64QAM - FEC: 1/2, 2/3, 3/4, 5/6, 7/8 - Guard interval: 1/4, 1/8, 1/16, 1/32 ISDB-T: - Modulation: QPSK, 16QAM, 64QAM - FEC: 1/2, 2/3, 3/4, 5/6, 7/8 - Guard interval: 1/4, 1/8, 1/16, 1/32 DVB-T2: - Modulation: QPSK, 16QAM, 64QAM, 256QAM - FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 - Guard interval: 1/4, 1/8, 1/16, 1/32
Data Rate	• LMS-T: 2.90 to 46.8 Mbit/s (bandwidth & modulation dependent) • DVB-T: 4.98 to 31.7 Mbit/s (bandwidth & modulation dependent) • ISDB-T: 4.89 to 30.9 Mbit/s (bandwidth & modulation dependent)
Bandwidth	• LMS-T: 3 / 4 / 5 / 6 / 7 / 8 / 10 or 12 / 14 / 16 / 20 MHz with two carrier density • DVB-T: 6 / 7 / 8 or 12 / 14 / 16 MHz with two carrier density • ISDB-T: 6 / 7 / 8 MHz • DVB-T2: 1.7 / 5 / 6 / 7 / 8 MHz
FFT Size	• LMS-T 512K • DVB-T 2K • ISDB-T 2K • DVB-T2 1K/2K

Video and Audio Parameters	
Video Encoder Profiles	• HEVC (H.265) UHD, HD & SD - Main, Main 10, Main 4:2:2 10 - 4:2:0/4:2:2 8/10 bit up to 4K UHD p60 • 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 - 4:2:0 8 bit, up to 1080i60
Video Inputs	2 SFP+ module slots supporting electrical and optical interfaces Supports 4x HD SDI Video inputs: • 4x 3G SDI up to 1080p 50/60 - 4x SDI SMPTE-259M - 4x HD-SDI SMPTE-292M - 4x 3G-SDI SMPTE-424M • 2x 6G SDI up to 4K UHD p25/30 - 2x 6G-SDI SMPTE-2081 • 12G SDI up to 4K UHD p50/60 - 1x 12G-SDI SMPTE-2082
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 • 1080psF @ 23.98, 24, 25, 29.97, 30 • 2160p (UHD) @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 • 2160p (4K) @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
HDR	• HLG • S-Log • PQ
Latency	Single frame (4K UHD/1080p)* <i>* End to end latency including RF, with Quantum Rx.</i>
Encode Inputs	• Single encode up to 4K UHD • Quad encode up to 3G
Audio Inputs	• 4x embedded audio over SDI / HD SDI / 3G SDI / 12G SDI • 1x analogue audio stereo pair configured as Mic / Line level (with phantom power)
Audio Encoding	• AAC (AAC-LC & HE-AAC) • MPEG-1 (Layer 1 & Layer 2) • Dolby E Passthrough • Linear PCM Passthrough
Scrambling	
Encryption	• BISS-1 • BISS-E Injected • BISS-E Buried ID • AES 128 & 256 Bit
Transport Stream Processing	
ASI	• Input for service multiplexing (Remux)* • Output * <i>* Input and Output on multifunction connector</i>
PIDS	PIDs user configurable
User Interface	
User Interface	• Keypad & OLED display with enhanced visibility • Ethernet control via internal webserver • WiFi connectivity & control via internal webserver
Telemetry	
UHF Input	410 to 490 MHz frequency range; FocalPoint camera control compatibility
Control	• 2x RS232 / 485 serial • 1x GbE Ethernet

Physical Connectors	
Connectors	• 2x SFP+ module slots supporting electrical and optical interfaces: - 4x SDI - 4x HD-SDI - 4x 3G-SDI - 2x 6G-SDI - 1x 12G-SDI • 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 (via RF module): - 50 Ω N-Type (M) • UHF Input Connector (via RF module): - 50 Ω SMA (F) <i>* Future implementation</i>
Flexibility and Power Supply	
Voltage	• Extended operation voltage range, 10V - 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.
Licenses	
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* • HCAM-LICE-0012 - ISDB-T License • HCAM-LICE-0013 - Dual Pedestal DVB-T • HCAM-LICE-0014 - AES Encryption • HCAM-LICE-0015 - IP Camera Control <i>* Licensed feature now included with new units</i>
Physical & Environmental	
Size and Weight	• Size: 165 (L) x 43 (H) x 82 (W) mm* • Weight: 600g** <i>* Including removable heatsink mounts, excluding RF connectors.</i> <i>** Including heatsink, excluding antennas.</i>
Environmental	Operating Temperature: 0°C to 50°C (32°F to 122°F)

Hardware Options	
Hardware Options	• HCAM-ASSY-5500 - HCAM RF/UHF Module 1.3-1.7GHz • HCAM-ASSY-5501 - HCAM RF/UHF Module 1.95-2.7GHz • HCAM-ASSY-5508 - HCAM RF/UHF Module 2.5-2.9GHz • HCAM-ASSY-5509 - HCAM RF/UHF Module 3.1-3.8GHz • HCAM-ASSY-5502 - HCAM RF/UHF Module 3.2-3.9GHz • HCAM-ASSY-5503 - HCAM RF/UHF Module 4.4-5.0GHz • HCAM-ASSY-5506 - HCAM RF/UHF Module 5.6-6.0GHz • HCAM-ASSY-5504 - HCAM RF/UHF Module 6.425-7.125GHz • HCAM-ASSY-5505 - HCAM RF/UHF Module 6.8-7.75GHz • HCAM-ASSY-5507 - HCAM RF/UHF Module 7.25-7.75GHz Unit supplied with 1x dual 12G-SDI SFP+ & 1x dual 3G-SDI SFP+ modules.

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.