Haivision

Kraken CR

Compact Rugged

Compact Rugged H.264 & HEVC FMV Encoder/Transcoder

Transport Mission Critical Live Video From Anywhere The Kraken CR is a compact, rugged, all-in-one full motion video (FMV) encoder/transcoder. Designed for on the move bandwidth constrained ISR applications with size and weight limitations. The Kraken CR leverages next generation encoding/transcoding to get the highest picture quality from available bandwidth for low latency situational awareness and C4ISR video.

Save Bandwidth Without Compromising Quality With Kraken CR HEVC encoding/transcoding, bandwidth is reduced by up to 50% over traditional H.264 solutions when transporting live video over constrained networks. HEVC streams can be played back directly on standards compliant players and decoders for monitoring or analysis purposes. Additionally, once the stream reaches its destination, a Haivision transcoder can be used to convert the stream from HEVC to H.264 or MPEG-2 for compatibility within existing distribution infrastructures.

Performance Transcoding with Metadata In the world of ISR, systems are designed to collect, process, and disseminate information. Many FMV applications bundle additional information with video streams in the form of metadata, typically in STANAG and MISP compliant Key-Length-Value (KLV) format. The Kraken CR is specifically optimized for the task of disseminating information in a format required by downstream networks, exploitation systems, and viewers, with the lowest possible delay, while preserving and enhancing metadata with frame accurate synchronization.

Adaptable workflows Designed to work in almost any video workflows, the Kraken CR can ingest video regardless of platform or format while maintaining metadata. Helping with beyond line of sight applications where bandwidth is especially constraint, the Kraken CR can encode/transcode video with HEVC (and H.264) compression for further reductions in bit rates while maintaining image quality. A versatile encoder/transcoder for fly-away kits where the application requires flexibility.

Features / Benefits

Features	Benefits
Compact, Rugged Appliance	Designed for demanding portable and space constrained baseband encode or transcode applications
Platform Agnostic	Ingest video from any source, in any format for transcoding to reduce bandwidth requirements over the most limited stretch of beyond line of sight networking
Low Latency HEVC	HEVC encoding and transcoding for mission critical applications where every second counts
MPEG-2, H.264 & HEVC Support	Interoperability with existing standards and tuned to the low bitrate challenges of ISR applications
Advanced Metadata Support	Inject and edit synchronized KLV into the MPEG stream from IP, embedded, or serial data sources

KRAKEN CR H.264 & HEVC HD ENCODING/TRANSCODING APPLIANCE

Encoding
Video Input:
 Composite NTSC/PAL/PAL-M
 SD-SDI SMPTE 259-M
 HD-SDI SMPTE 292M, 274M, 296M

Transcoding
Input:
 IP MPEG-2, H.264 or HEVC input
 MJPEG from L-3 Vortex

Input H.265/HEVC:
 Up to Level 4 (1080p30)
 Main Profile
 MPEG Transport Stream, SRT or RTSP
 Up to 10Mbps
 CBR, VBR

Input H.264/AVC:
 Up to Level 4.2 (1080p60)
 Baseline, Main, High Profile
 MPEG Transport Stream, SRT or RTSP
 Up to 20Mbps
 CBR, VBR

Input MPEG-2:
 MainProfile@MainLevel (SD)
 MainProfile@HighLevel (HD)
 MPEG Transport Stream
 Up to 20Mbps

Input Audio:
 MPEG1 Layer 2
 AAC 2 channel and 5.1

Input Metadata:
 KLV or CoT over serial RS-232
 KLV or CoT over IP
 KLV over HD-SDI

Output H.265/HEVC:
 Main Profile
 Up to Level 4 (720p30)
 MPEG Transport Stream or SRT
 Up to 6Mbps
 Transport Stream Shaping, VBR

Output H.264/AVC:
 Baseline, Main, High Profile
 Up to Level 4 (1080p30)
 MPEG Transport Stream or SRT
 Up to 10Mbps
 Transport Stream Shaping, VBR

Output MPEG-2:
 Simple and Main Profile
 Up to Main Level
 Up to 10 Mbps
 Transport Stream Shaping, VBR

Output Audio:
 AAC 2 channel
 Audio Sync Preserved

Metadata (Processing):
 CC 608/708 pass-through
 CoT to KLV conversion
 CoT Relay
 Insertion and KLV edits
 KLV pass-through
 SMPTE 336M compliant
 MISB 0601 compliant

Video Processing
 De-interlacing
 Down Scaling
 Aspect Ratio Preserved
 Configurable Frame Rate
 Optional QSV HW Acceleration

Networking
 Single Program Transport Stream (SPTS)
 Unicast/Multicast (IGMPv3)
 TS over UDP
 Session Announcement (SAP)

Management
 Web User Interface (HTTPS only)
 REST API
 Console UI

Appliance
Weight:
 2.6 lbs (1.18 Kg)
Dimensions:
 44.45mm H x 124.968mm W x 213.868mm D
 (1.75" H x 4.92" W x 8.42" D)
Power:
 12-28VDC, 45W
 100-240VAC external locking power supply
Temperature:
 Operating: 0º to 50ºC (32º to 122ºF)
 Non-Operating: -40º to 50ºC (-40º to 122ºF)

Kraken CR Ordering Information**

Kraken CR H.264/HEVC HD Encoding/ Transcoding System with KLV Support	**S-KR-CR-KLV**	Kraken CR H.264/HEVC HD Encoding/Transcoding System with KLV Metadata Support - Low latency, composite or up to 1080p30 digital video; or IP transport stream input. H.264/HEVC in/out. 1xHD/2xSD HEVC out or 4xHD/8xSD H.264 out. Compact Rugged appliance.
Kraken CR H.264/HEVC HD Encoding/ Transcoding System with KLV Support and Hardware acceleration	**S-KR-CRDT-KLV**	Kraken CR H.264/HEVC HD Encoding/Transcoding System with KLV Metadata Support and HW acceleration - Low latency, composite or up to 1080p30 digital video; or IP transport stream input. H.264/HEVC in/out. 3xHD/11xSD HEVC out or 5xHD/25xSD H.264 out. Compact Rugged appliance.

** For complete pricing and ordering, contact us at sales@haivision.com or your certified Haivision reseller.

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