

DATASHEET

SDNA-LITE-K

Software Definable Network-Appliance™ with Haivision Kraken

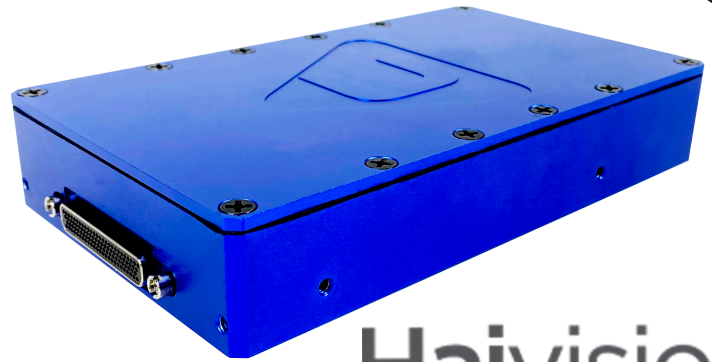
Software Definable Network-Appliance™ (SDN-A™) LITE-K is now available with Haivision's Kraken video transcoder functionality for use cases where size, weight, power, and Mil-Standard 810 level of ruggedization is critical. Leveraging SDN-A technology, Kraken provides the highest picture quality from available bandwidth for low latency backhaul of situational awareness and C4ISR video.

Haivision Kraken™

Known for high-density tactical live HD video encoding and transcoding, Haivision's Kraken can shape video streams for more robust backhaul via data links including satellite (SATCOM), microwave, and the internet, to downstream exploitation systems, such as enterprise distribution networks and mobile devices—where compliance with legacy standards is essential.

Aggregated Situational Awareness

Designed to work in almost any ISR video workflow and supporting HEVC/H.265, H.264, and MPEG-2, Kraken can ingest video from numerous motion imagery sources and formats simultaneously regardless of platform while maintaining synchronized metadata for Command & Control (C2)



Haivision

and Common Operating Picture (COP) systems. Helping with beyond line-of-sight applications with constrained bandwidth, Kraken can encode/transcode multiple video streams with HEVC compression for significant reductions in bitrate while maintaining image quality. with SDR/SDTR, MS Windows or Linux server, MS Windows, or Linux computer, etc.

SDNA-LITE-K

The SDNA-LITE-K is extremely small, rugged, and low power. It features a single high-density connector that contains all of its power and I/O, allowing for simple installation or removal from use. Custom wire harnesses are available to meet use case requirements such as tailor-made length, interfaces, input/output, and gender. The device also offers multiple mounting points and thermal solution mounting points to support various worn and mounted applications.

The SDNA-LITE-K can perform multiple software-based networking and computing roles simultaneously in a single device. Potential functions of an SDN-A include software-defined Router, VPN, Firewall, IDS/IPS, VoIP PBX, video transcoder, SIGINT receiver with SDR/SDTR, MS Windows or Linux server, MS Windows, or Linux computer, etc.

Bandwidth Optimization

Kraken allows you to deliver substantially increased full HD video quality over satellite and other constrained networks. Optimized for 1080p/720p applications, Kraken receives high bitrate H.264 streams, which it then transcodes to HEVC for transport (typically in the 1 Mbps to 3 Mbps bandwidth range) and reconverts from HEVC/H.265 to H.264 for onward distribution through less constrained exploitation ecosystems.

With Kraken, HEVC transcoding reduces bandwidth by up to 50% compared to H.264 while maintaining high picture quality. It also reduces data service costs where IP data transport is a "pay for kilobytes transported" service.

Compliant 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 MISB compliant Key-Length-Value (KLV) format.

Kraken is specifically optimized to disseminate information in a format that adheres to defense standards in downstream networks, exploitation systems, and viewers, with the lowest possible delay, while preserving and enhancing metadata with frame-accurate synchronization.

Specifications

- 6.1" long by 3.6" wide by 1.15" tall
- Weighs 1lb.
- Offers either Intel E3845, E3827, E3950, and E394 multi core processors
- Options for 2 or 8 GB of RAM
- Options for 2 or 8 GB of board level FLASH memory or use of MICRO SD
- 5 gigabit routed Ethernet ports
- 2 USB 2.0 ports
- Display port (4K video support)
- Stereo audio output / Stereo audio input
- Designed to meet an IP68 rating
- Consumes 9-36VDC input (approx. 20 watts)

Applications

- Unmanned Platforms (Land, Maritime, Aeronautical)
- Man-wearable applications
- Wheel and tracked vehicles, fixed wing and rotary wing aircraft
- Robotics
- Industrial Internet of Things (IIoT)
- Machine to Machine (M2M)
- Small, low power applications
- NSA Commercial Solutions for Classified (CSfC)
- Extreme rugged virtual machine server