



# Condor VPX-H265-SDI



## Rugged 3U VPX H.265 (HEVC) / H.264 Video Encoding & Streaming w/ Two 3G-SDI inputs

Condor VPX-H265-SDI is a standalone rugged 3U VPX H.265 (HEVC) / H.264 video/audio encoding and streaming solution, with CoT/KLV metadata support, that is designed to serve video transmission needs in harsh field environments. With low latency encoding, streaming and low power consumption, this unique product offers a powerful solution for customers designing VPX systems.

Condor VPX-H265-SDI encodes and streams two 3G/HD/SD-SDI video inputs simultaneously using the highly versatile and widely used video encoding standards H.265 or H.264. H.265 (High Efficiency Video Coding or HEVC) provides increased video quality with a lower bitrate as compared to H.264. Two stereo line in audio inputs can be merged with the video streams. CoT/KLV metadata can be accepted over two RS-232 ports or over Ethernet and then merged with the video stream. It can create multiple encoded video streams per input. Video/audio data is compressed and delivered in an MPEG2TS container to the dedicated on-board Ethernet output as a UDP stream with optional RTP header. The H.265 encoding parameters are highly configurable with support for main profile as well as variable and constant bitrate configurations (512 Kbps to 30 Mbps). H.264 can also support baseline, main, or high profile. The card can be controlled/monitored over Ethernet in several ways, including SNMP 3.0 as well as a well-defined API. A web-based configuration GUI is also available that facilitates real-time configuration. The encoded video streams are transferred back to the host via the on-board Ethernet output. This product is available in conduction cooled with Rear I/O.

### Key features of this product:

- H.265 / H.264 Video Encoding & Streaming
- Standalone Solution
- 3U VPX (1" Pitch)
- Video Inputs: Two 3G-SDI / HD-SDI / SD-SDI
- 1 Gb Ethernet Output
- Two RS-232 for Metadata
- Two Stereo Line In Audio (Encoded with AAC)
- USB 3.0 (With Encoded Data)
- CoT / KLV Metadata Support  
(Two RS-232 & Ethernet)
- MPEG2TS Muxing of Video & Audio
- SNMP 3.0 Control Support
- Web Based Configuration GUI
- Rear I/O on VPX P2
- MIL-STD-810
- Conduction Cooled

### Fully Ruggedized



# Condor VPX-H265-SDI Specifications

Interface	3U VPX (1" Pitch). Standalone Solution. 16, 8 or 4 Lane PCIe 3.0
Video Encoding	H.265 HEVC (MPEG2TS) H.264 AVC / MPEG-4 Part 10. (MPEG2TS) (Capable of creating multiple encoded video streams per input)
Encoding Profiles	H.265 (HEVC) - Main with Adjustable Bitrate. AAC Audio Encoding H.264 (MPEG-4 AVC) - High, Main and Baseline with Adjustable Bitrate (512 Kbps to 30 Mbps; Constant & variable rate control) AAC, MP2 and AC3 Audio Encoding
I/O	Two 3G-SDI, HD-SDI or SD-SDI Video Inputs 1 Gbps Ethernet contains UDP streams Two RS-232 for CoT / KLV Metadata Two Stereo Line In Audio Inputs One USB 3.0 Port (Delivers Encoded Data)
Output Type	MPEG2TS Stream Packetized as UDP with optional RTP header IP Streams Sent over dedicated on-board Ethernet output
Resolution Support	3G-SDI : SMPTE 424M (1080p60, 50, 59.97) HD-SDI : SMPTE 274M (1080p30) HD-SDI : SMPTE 292M (1080i60, 720p60) SD-SDI : SMPTE 259M (480i, 576i)
Power Consumption	≈15 W
Operating Temperature (MIL-STD-810)	-40°C to 85°C (Rugged Conduction Cooled)
Vibration (MIL-STD-810)	0.1 g <sup>2</sup> /Hz
Shock (MIL-STD-810)	40 g
Humidity (MIL-STD-810)	95% Without Condensation

## Condor VPX-H265-SDI Block Diagram

