



**DUMA VIDEO**  
Low Latency MPEG Codecs

# Akali

## Altera H.264 Encoder FPGA IP

The Akali IP is optimized for very low latency video compression. The high density design allows for a single FPGA compression design, reducing overall system costs and power consumption. This makes Akali the IP choice for RF video links, industrial control, video conferencing, and surveillance.

The Duma Video team is dedicated solely to video compression and decompression. We were the first to have a working real-time HD solution on FPGA.

Design services are available upon request.

## FEATURES

- Low latency: 2 frames or less
- Chroma 4:2:0 and 4:2:2
- Cabac entropy encoding up to 50Mbps
- Quarter pixel motion prediction
- Deblocking filter
- 4×4 and 16×16 prediction modes
- Field/Frame based encoding
- Video resolution: User defined up to 1080p/30fps
- Audio sample frequency: 32kHz, 44.1kHz, 48kHz
- Video and transport bit rates selectable from 1 Mb/s to 50 Mb/s
- Low power
- All code written by Duma Video
- Flexible licensing terms

## SPECIFICATIONS

<b>FPGAs supported</b>	Stratix IV
<b>License options</b>	One-time fee or per unit royalty
<b>Control interfaces</b>	I2C, PCI, as well as proprietary interfaces
<b>Audio/Video Interfaces</b>	I2S, SMPTE 125m/274m, BT 656/601, DVI/HDMI and others
<b>Physical size</b>	1 chip
<b>Operating temp</b>	0 to 85 C

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