

CAST H.264 Video Encoder IP Core Now More Flexible, Faster, and Easier to Integrate

Anaheim, CA, Design Automation Conference (DAC), June 14, 2010 — An improved H.264 Encoder Core just released by semiconductor intellectual property (IP) provider CAST, Inc. helps video system designers use advanced H.264 video compression for more applications, in economical smaller FPGAs, and with fewer system integration challenges than previously possible.

The H264-E Video Encoder Core implements hardware video compression using the popular H.264 Advanced Video Coding standard (level 4.1). Clever design allows the encoder to produce extremely high quality video using the standard's Baseline profile, yielding significant savings in hardware resources and processing time.

<http://www.cast-inc.com/ip-cores/video/h264-e/index.html>

The H264-E now supports Constant Bit Rate (CBR) compression, a critical feature for any system that has a restricted bandwidth for transmitting the compressed video. The encoder's CBR function automatically varies the degree of compression with changes in image complexity to always produce the highest quality video that fits the specified transmission rate.

Innovative techniques by the H264-E core's proprietary developer and CAST partner Alma Technologies S.A. result in remarkably good looking video at even very low transmission rates. Moreover, the video stream is carefully encoded so as to be readily accepted and decoded by existing video hardware. This total systems approach—which also extends to the core's use of external memory and other aspects—helps eliminate many integration challenges waiting for most H.264 video system developers.

The new version of the encoder core also operates 40% faster.

All ASIC and FPGA implementations of the encoder benefit from the faster performance, but most significant is that the H264-E can now process full 1080p HD video—1920 by 1080 pixel frames at 30 frames per second—in smaller FPGAs such as the Altera Stratix® IV and Xilinx Virtex®-5 device families.

CAST believes the H264-E core's output video quality, CBR capabilities, and system integration ease now match or exceed those of any competing products.

DAC attendees are welcome to see for themselves by visiting CAST's booth (752) for live demonstrations; others please visit the CAST website (<http://www.cast-inc.com>) any time or call (+1 201.391.8300) for detailed specifications and to arrange a demonstration or evaluation model.

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