

## CAST Releases JPEG Cores

*Fast, compact Encoder and Decoder ready for image processing applications*

**May 29, 2002 (IP Japan 2002) Yokohama, Japan** — Semiconductor intellectual property (IP) provider CAST, Inc. today announced the release of encoder and decoder cores for the popular JPEG image compression standard.

These cores are designed to provide high-speed, space-efficient ASIC or FPGA JPEG implementations for digital cameras, video conferencing systems, scanners, surveillance systems, and portable display devices. Their speed and simplicity makes them especially suitable for cost-effective motion JPEG applications, such as inexpensive consumer-oriented digital camcorders.

The cores offer baseline compliance with the ISO/IEC 10918-1 JPEG standard. They support all the defined JPEG data formats and possible scan configurations, handle any image size up to 64k x 64k, and feature four stream-defined Huffman and Quantization tables. The designs are programmable, fully-synchronous, and provide complete stand-alone operation with minimum memory requirements.

Significantly faster than many competing products, the new JPEG cores are expected to achieve over 70 Mega samples/second for fast FPGA families, and even higher rates for ASICs. The cores are also space-efficient: just 3700 slices were used in the slower Xilinx Virtex-6™ FPGA, with a speed of 55 Mega samples/second.

Licensed from graphics processing expert and CAST development partner Alma Technologies S.A. ([www.alma-tech.com](http://www.alma-tech.com)), the new JPEG\_Fast\_E encoder and JPEG\_Fast\_D decoder cores are available now, in HDL form for ASIC synthesis or optimized for Altera or Xilinx devices. Pricing varies; contact CAST or your local distributor for details.

The JPEG cores join CAST's general purpose IP (gpIP) line of cores, which also includes 8- and 16-bit processors, peripherals, buses, network interfaces, communications devices, and encryption functions.

Operating since 1993 with a focus on making IP practical and affordable for mainstream designers, CAST has established a reputation for high-quality products, flexible licensing, and responsive technical support. The company is located near New York City, and works with an international network of IP developers and distributors.

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