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## CAST Introduces Flexible Family of JPEG IP Cores

*Designers get greater choice of performance and price  
for JPEG coder, decoder, and codec cores*

**February 2, 2004 (DesignCon) Santa Clara, California** — Semiconductor intellectual property (IP) provider CAST, Inc. today announced a new flexible family of JPEG image processing cores that gives greater choice in matching the characteristics and cost of a JPEG-standard core with an application's specific requirements.

The CAST Flexible JPEG Family starts with new baseline *JPEG* cores that provide inexpensive image compression and decompression in conformance with the JPEG standard. Designers can add one or more additional options, in any combination:

- *Motion* adds the ability to process video streams.
- *Speed* doubles the performance of the core.
- *Program* gives the designer access to a set of controllable processing factors.

A core combining all these options, *JPEG Super*, completes the CAST Flexible JPEG Family. All the cores are suitable for use in ASICs or FPGAs. Select cores are available now, the rest in the second quarter. Pricing varies; contact CAST for details.

### About the New Cores

JPEG is an image compression algorithm popularly used for photographs and other naturalistic images (see <http://www.faqs.org/faqs/jpeg-faq>). CAST's JPEG cores all provide baseline compliance with the ISO/IEC 10918-1 JPEG standard, but this standard includes options that aren't all needed for every application.

The base CAST JPEG coder, decoder and codec cores are delivered in a fixed configuration as specified by the customer. An encoder, for example, might be configured to only work with grayscale images sized 640 x 480 pixels and to use pre-set encoding options (like Huffman and quantization tables). This contrasts with most competing cores — and CAST's *JPEG Super* cores — which offer full programmability and a complete set of processing capabilities whether these are actually needed or not.

CAST's base *JPEG* cores process images sufficiently fast for applications such as inexpensive digital cameras or frame-per-minute surveillance systems. If quicker processing is required — as for high-end digital cameras — the customer can add the *Speed* option.

If video processing is required, the customer would add the *Motion* option, perhaps by itself for a consumer video conferencing product or with *Speed* as well for a real-time video conferencing system. Likewise, if the core is to handle a variety of frame sizes, quality levels, and so on, then the *Program* option is the best choice.

All the cores are developed by CAST partner Alma Technologies, based in Greece ([www.alma-tech.com](http://www.alma-tech.com)).

## About CAST, Inc.

CAST provides general purpose IP (gIP), offering nearly 100 different popular and standards-based cores including processors, interfaces, and application-specific functions for multimedia and encryption. ASIC, FPGA, and System-on-Chip (SoC) designers use these cores to significantly shorten their development time and reduce their overall costs. The company has about 200 customers developing products in nearly every applications area.

Privately owned and operating since 1993 with a focus on making IP practical and affordable, CAST has established a reputation for high-quality IP products, simple licensing, and responsive technical support. The company is headquartered near New York City, has a European office in the UK, and works with an international network of IP developers and distributors.

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