

SoftJin announces High Performance JPEG Encoder and Decoder IP

SANTA CLARA, Calif. (USA) & **BANGALORE**, India – 15th February 2010 – SoftJin, a provider of soft design IP in various domains including audio/ video processing, communication, memory controller, interfaces, announces JPEG Encoder and Decoder IP. SoftJin’s JPEG encoder IP is a high performance RTL solution and capable of encoding Still Images as well as Video stream with SD, VGA and HD resolution. JPEG Encoder IP compresses BMP image without any perceptible deterioration of image quality. The users can also trade-off compression ratio with image quality by configuring the quantization tables in the JPEG encoder. JPEG decoder IP does reverse operation to decompress JPEG image into BMP image.

SoftJin’s JPEG Encoder and Decoder IP have been silicon proven on Xilinx and Altera FPGA platforms. The key features of the IP include:

- Supports baseline ISO/IEC 10918-1 standard
- Has 8 x 8 two dimensional DCT/ IDCT
- Supports colour components in 4:4:4, 4:2:2 and 4:2:0 formats
- Can compress/decompress any size of image

The Encoder can take both YCrCb as well as RGB input formats and has configurable Huffman and Quantization tables. While running at 100 MHz, it can compress

- VGA frame (640 x 480) in 9.2 ms
- SD frame (720 x 576) in 12.4ms
- HD frame (1920x1080) in 63.2 ms
- 3 MP image in 94.3 ms

“JPEG Encoder and Decoder can be used in a broad range of low cost imaging applications requiring still image compression/ decompression in real time. As compared to other video compression methods such as MPEG2/MPEG4, JPEG Encoder and Decoder consumes lesser area, hence enabling users to quickly deploy a low cost image/ video compression/ decompression system” says Shridhar Laddha, Director of SoftJin Technologies.

The IPs (alone or in combination with SoftJin's other IPs like PAL-NTSC Encoder, DVB-S2 demodulator, SD Card controller, NAND flash controller) can be used to built system for various application area including

- Surveillance System
- Traffic monitoring system
- High resolution Digital camera and camcorder
- Office automation equipment like printers, scanners, digital copiers etc
- Medical imaging systems
- Video conference and display-projection systems

SoftJin's JPEG Encoder and Decoder IP can be licensed in Source code as well as Netlist format under single use or multiple use pricing models. Deliverables also include Detailed Documentation and Test Environment.

For more details and product datasheets please visit http://www.softjin.com/IP_Datasheet_PDF_version/JPEG_Encoder_datasheet.pdf and http://www.softjin.com/IP_Datasheet_PDF_version/JPEG_Decoder_datasheet.pdf or contact at sales@softjin.com

About SoftJin

SoftJin Technologies develops Innovative and Customized Automation software and hardware for Electronic Design and Manufacturing. SoftJin, based on its years of expertise in Design and EDA domain, offers a variety of Soft, Digital IP cores in several domains including Audio-Video, Interfaces, Memory Controllers, Error Correction and Communication. These high-quality IPs, available in both RTL and Netlist form, are backed by SoftJin's unique IP Customization Services that enable you to get optimized versions of the IP as per your Implementation and Application requirements. To know more about SoftJin's Design IP portfolio please visit http://www.softjin.com/html_new/ip_portfolio.html

As part of our services organization, we also offer add-on IP Integration as well as end-to-end System Design and Verification Services with focus on high end FPGA/ASSP based System design. To know more about SoftJin's System Design and Validation services please visit http://www.softjin.com/html_new/design_services_overview.html

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