

# PRESS RELEASE

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## SUNDANCE EXPANDS IP PORTFOLIO WITH IMAGING CORES FROM CADRE CODESIGN



**Sundance Combines DSP FPGA  
Multiprocessing Modules With JPEG IP  
From Cadre CodeSign To Deliver Low Cost, High Performance  
Imaging Solutions to the Medical Imaging, Security and Machine  
Vision Markets.**

**London, UK and Montreal, Canada - 15 December 2008** – Sundance, the leading supplier and manufacturer of advanced digital signal processing and reconfigurable FPGA systems, announced today that it has extended its partnership with Cadre CodeSign, a specialist provider of IP and embedded FPGA design solutions, to deliver Cadre's CT-JPEG04 core across a range of its modular DSP FPGA multiprocessor hardware solutions. Based on the JPEG ISO/IEC IS 110918-1 standard image-compression algorithm, the core compresses images of 1280 x 1024 pixels resolution at a rate of 500 frames/sec and can sustain an input of one 8 bit pixel every 660MHz. This level of performance makes the solution ideally suited to applications where images are either analyzed on the fly or stored for later reference and analysis.

The Cadre CodeSign core significantly outperforms standard off-the shelf JPEG cores that can typically sustain inputs of 4MB (64K x 64K images) frames at 30 frames per second and generate outputs of 122 MB/sec. Provided with a ModelSim evaluation model the core will be initially available on Sundance's Digital Video Infrastructure Platform (DVIP) that offers developers a complete, integrated solution for digital video development.

Built on Sundance's modular and infinitely-scalable multiprocessing concept, the DVIP leverages the performance and flexibility of two TI TMS320C6455 digital signal processors (DSP) and a TMS320DM642 DSP-based digital media processor. The 1GHz C6455 DSPs allow multiple processors to be connected via a Serial Rapid I/O (SRIO) interface and the DVIP incorporates Xilinx Virtex-4 FX60 FPGAs that are the implementation target for Cadre's CT-JPEG04 core.

The modular architecture of the DVIP allows customers to increase the processing performance in the field and add one of more than 40 additional variant modules that support the Sundance TIM (Texas Instruments Module) standard. As this standard is open-domain, it is also possible to integrate proprietary solutions. Design support is provided via 3L's Diamond multiprocessor tool-suite that provides a highly automated development flow from concept through to applications running in multiprocessor hardware and Code Composer Studio from TI.

Pierre Popovic, Cadre CodeSign's president commented, "a key issue facing developers who use conventional systems is storage of the 524 MB/sec (monochrome) or 1.535 GB/sec (color) outputs generated by today's high

performance cameras, and this is compounded by Bus technology that struggles to sustain more than 250 MB per second. By marrying our CT-JPEG04 core with FPGA technology we provide an optimal compression solution that overcomes the bus bottleneck and storage problem."

The agreement with Cadre broadens the Sundance offer to application developers targeting high-end video and imaging systems and is another addition to the IP ecosystem that supports Sundance's multiprocessing platforms. "As we continue to increase the number of application optimized multiprocessor modules, we've aligned with IP providers to support their roll-out to particular customer segments and application groups," said Flemming Christensen, managing director of Sundance Multiprocessor Technology Ltd. "By strengthening our partnership Cadre, we can offer greater choice to customers developing video and imaging applications, whether they are in the military, research or enterprise space." Available from your local Sundance sales office, prices are subject to module configuration and FPGA type. For more information email [enquiries@sundance.com](mailto:enquiries@sundance.com) or visit [www.sundance.com](http://www.sundance.com).

#### **About Sundance**

Sundance designs, develops, manufactures and markets internationally high performance signal processing and reconfigurable systems for original equipment manufacturers in the wireless and signal processing markets. Leveraging its multiprocessor expertise and experience, Sundance provides OEM with modular DSP and FPGA-based systems as well as data acquisition, I/O, communication and interconnectivity products that are essential to multiprocessor systems where scalability and performance are essential. With over fifty different modules and carriers for PCI, cPCI VME and Stand Alone platforms, Sundance is a solution provider to semiconductor, pharmaceutical and factory automation industries. Sundance, founded in 1989 by the current directors, is a member of the TI Third Party Program, Xilinx Alliance Partner and MathWorks' Connection programs. For more information visit [www.sundance.com](http://www.sundance.com).

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