Barco Silex presents JPEG2000 encoder core optimized for digital cinema and broadcasting

Clive (Max) Maxfield - January 16, 2007

Barco, a global technology company headquartered in Kortrijk, Belgium, designs and develops visualization products for a variety of professional markets. Barco Silex, Barco's center of competence for electronic design services and Intellectual Property (IP), has presented a new JPEG2000 encoding core, targeting single-chip FPGAs or ASICs for use in digital cinema and broadcasting applications.

Capitalizing on its long-term experience with JPEG2000 hardware coding and following the release of a DCI JPEG2000 decoder, Barco has extended its JPEG2000 portfolio by releasing a new real-time hardware encoder engine that is optimized for digital cinema and broadcasting applications. The core architecture offers a flexible and high-speed solution in a cost-effective, single-chip FPGA. It is able to sustain the high encoding requirements of the large DCI (Digital Convergence Initiative) and broadcasting frame formats, including 2048 × 1080 and 4096 × 2160 resolutions and frame rates up to 48 frames per second. The underlying architecture of the core enables a broad range of features and performance options.

"In accordance with our Intellectual Property business model, our new encoding and decoding cores are available for third party licensing on FPGA or ASIC technologies," said Frédéric Devisch, Sales and Marketing Manager of Barco Silex. "For enhanced security, our IP portfolio also includes Advanced Encryption Standard (AES) cores with optional countermeasure protection. The combination of these cores with the new JPEG2000 encoder allows users to build an integrated, secured DCI encoding platform."

Barco Silex has acquired worldwide expertise in advanced image processing and security applications for digital cinema, broadcasting, surveillance, printing, aerospace, secure payment, and so forth. Combining high-end know-how in image and video processing with custom design capabilities (ASIC/FPGA/DSP/IP), the company delivers high-grade custom-built video processing solutions.