

Concurrent Real-Time Announces FPGA-based 64-Channel Analog Input Card

The new 18-bit resolution A/D PCIe card supports conversion rates up to 1.4 mega samples per second

POMPANO BEACH, Fla., Jan. 16, 2019 /[PRNewswire](#)/ -- Concurrent Real-Time, a global provider of high-performance Linux solutions, today announced availability of model CP-ADS6418, a 64-channel, 18-bit, analog-to-digital converter card. The new card is designed for high-performance data acquisition and hardware-in-the-loop simulation applications. The card is also fully supported by Concurrent's SIMulation Workbench real-time modeling environment.

The CP-ADS6418's successive-approximation-register (SAR) design converts up to 500K samples/second per channel when using 64 channels. The card can also be used as a 32-channel card supporting up to 700K samples/second per channel. In addition, two channels can be combined to sample as a single channel providing up to 32 channels converting up to 1 mega sample/second per channel or 16 channels converting up to 1.4 mega samples/second per channel. Groups of 16 channels can be individually programmed by four independent clocks to collect samples at different frequencies.

The card is implemented using Analog Devices LTC2353 converters. Each converter group has an independently selectable clock source generated by a low-jitter clock generator. Overvoltage protection is included to prevent card damage. The card can be configured for single-ended input or differential input for low noise and accurate measurements. Multi-board clocking and synchronization is supported. A Concurrent RedHawk™ Linux® driver with an extensive software API that includes DMA and interrupt support is available.

"The CP-ADS6418 is a very cost-effective solution for applications that require large A/D channel counts and high-performance." Says Ken Jackson, President and CEO of Concurrent Real-Time. "The card fully complies with the NIST traceable calibration standard."

SIMulation Workbench

Concurrent's SIMulation Workbench is a powerful real-time, modeling environment that provides a complete framework for developing and executing real-time hardware-in-the-loop and man-in-the-loop simulations for automotive, aerospace, and defense applications. Its powerful GUI allows users to conveniently configure, start, stop, record and play back simulation runs. SIMulation Workbench provides fast, direct shared-memory-access to all of a simulation's parameters and signals. It enables complex multi-rate simulations to be run on a single multi-processor system utilizing any number of cores, delivering better performance when compared to legacy solutions.

About Concurrent Real-Time

Concurrent Real-Time is the industry's foremost provider of high-performance real-time computer systems, solutions and software for commercial and government markets. Its real-time Linux solutions deliver hard real-time performance in support of the world's most sophisticated hardware in-the-loop and man-in-the-loop simulation, high-speed data acquisition, process control and low-latency transaction processing applications. With over 50 years of experience in real-time solutions, Concurrent Real-Time provides sales and support from offices throughout North America, Europe and Asia. Visit www.concurrent-rt.com for further information.

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