# Lattice Releases Sercos III Real-Time Industrial Ethernet Solution

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**LatticeECP3 FPGA Module for the AUTOMATA Sercos III Real-Time Ethernet Evaluation Kit**

HILLSBORO, OR, Nov 22, 2011 (MARKETWIRE via COMTEX) -- Lattice Semiconductor Corporation (NASDAQ: LSCC) today announced the immediate availability of a Sercos III real-time Ethernet solution. The low cost, low power LatticeECP3(TM) FPGA-enabled Sercos III solution provides a low cost and flexible design alternative for real-time industrial networking applications. Sercos III is supported by Sercos International e.V., the worldwide user organization for Sercos technology. Sercos International is showcasing the LatticeECP3-based Sercos III networking platform at this week's SPS/IPC/Drives show, November 22-24, Hall 6, Stand 110, at the Exhibition Center in Nuremberg, Germany.

Sercos is a digital bus that interconnects motion controls, drives, I/O, sensors and actuators for numerically controlled machines and systems. It is designed for the high-speed serial communication of standardized closed-loop real-time data over Industrial Ethernet. The Sercos III real-time Ethernet evaluation kit consists of two boards (FPGA module and base board), plus an optional expansion module. It is designed in particular for test implementations and performance measurements of Sercos III slave devices based on the SERCON100S slave IP core in combination with the LatticeMico32(TM) soft microprocessor and other optional system functions.

The FPGA module consists of a LatticeECP3-35 FPGA, 8 MB Flash and 8 MB DRAM. Due to its compact dimensions and its wide bus and I/O interface, the FPGA module can also be integrated as is into Sercos III slave devices. This saves cost and reduces the time to market for slave devices like I/O units or drives.

The base board has 16DI and 16DO, all with status LEDs, an RS232 interface, various switches and the standardized bi-color Sercos III diagnostic LED. The board is supplied with 24VDC or 5VDC. A socket for expansion modules allows the addition of more functions or interfaces, such as analog I/O.

The FPGA module is supported by the proven AUTOMATA Sercos III slave communication stack and test tools such as a master simulator for Windows XP. A sample implementation of the Sercos III I/O profile (FSP-I/O) is available.

"FPGAs offer a flexible platform for the diverse requirements of industrial automation. The flexibility, scalability, low cost and low power of the innovative LatticeECP3 devices provide an ideal platform for innovative and cost-efficient automation products," said Peter Lutz, managing director of Sercos International.

"The Sercos interface allows drive and control manufacturers to create intelligent digital drives with vastly improved capabilities and flexibility," said Niladri Roy, Senior Manager for Vertical Markets at Lattice. "The availability of Sercos III on the LatticeECP3 FPGA family provides a low cost, low power FPGA-based alternative for a wide spectrum of customers who need to implement flexible industrial networking solutions."

The Sercos III real-time Ethernet evaluation kit with the Lattice FPGA module can be purchased from Automata GmbH & Co. KG.

About the Lattice ECP3 FPGA Family

The mid-range LatticeECP3 FPGA family is comprised of the lowest power, SERDES-enabled FPGAs in the market today. The family's five FPGAs offer standards-compliant, multi-protocol 3.2G SERDES, DDR1/2/3 memory interfaces and high performance, cascadable DSP slices that are ideal for RF, baseband and image signal processing. Toggling at 1Gbps, the LatticeECP3 FPGAs also feature fast LVDS I/O as well as embedded memory of up to 6.8 Mbits. Logic density varies from 17K LUTs to 149K LUTs with up to 586 user I/O. The LatticeECP3 FPGA family is ideally suited for deployment in high volume cost- and power-sensitive industrial, video camera and display, wireline communications and wireless infrastructure applications.

About Sercos International

Sercos International (SI) is the responsible user organization for the technical development, standardization, certification and commercialization of the Sercos real time communication standards (IEC 61784/61158 and IEC 61800-7). At present, more than three million Sercos nodes have been implemented worldwide in over 400 thousand applications. SI offers conformance testing to help ensure that products built to its specifications operate in multi-vendor systems. The organization, with its headquarters in Germany, presently has more than 70 member companies all over the world as well as subsidiary trade associations in North America and Asia. For more information, visit the Sercos web site at www.sercos.org.

About Lattice Semiconductor

Lattice is the source for innovative FPGA, PLD and programmable Power Management solutions. For more information, visit www.latticesemi.com. Follow Lattice via Facebook, RSS and Twitter.

EDITORIAL/READER CONTACT:
Brian Kiernan
Corporate Communications Manager
Lattice Semiconductor Corporation
503-268-8739 voice
503-268-8688 fax
brian.kiernan@latticesemi.com

SOURCE: Lattice Semiconductor Corporation