Welcome to the July issue of the *Inside Edge*. This monthly e-Newsletter gives you the latest news about Altera's products and solutions.

July 2005

Monthly Spotlight

[Download Service Pack 1 for Quartus II Software v5.0](#)

This release adds full programming support for Cyclone™ II EP2C70 and EP2C20 devices. It provides final timing models for Stratix® II EP2S15, EP2S90, and EP2S130 devices and MAX® II EPM570 and EPM2210 devices.

FPGAs, CPLDs & Structured ASICs

[Achieving Your System Performance Goal is Made Easy With Stratix II](#)

Stratix II FPGAs outperform Virtex-4 by a full speed grade based on the latest performance benchmark. Use this performance advantage to boost your system performance and add new high-performance features to your system that are unachievable by competitive FPGAs. [Download](#) the white paper.

[Introducing Smaller and Lower-Cost Cyclone II Device Packages](#)

Two new Cyclone II packages have been introduced to provide even lower-cost and smaller form factor Cyclone II devices. The low-cost 240 pin PQFP and a 19x19mm 484 pin UBGA (.8mm ball pitch) extend Altera's low-cost FPGA leadership. Purchase Cyclone II devices at Altera's e-store today!

Software, Intellectual Property & Development Kits

[Experience Shorter Simulation Times with DSP Builder v5.0](#)

Speed up your system simulations and shorten your debugging time using the latest version of DSP Builder. This tool links Quartus® II software with The MathWorks MATLAB/Simulink, the industry's leading tool for model-based design, allowing designers to directly create DSP hardware designs.

[Simplify Your PCI Express Design With Altera's New MegaCore IP Core](#)

Accelerate your time-to-market with next-generation PCI system designs using the highly-configurable, hardware proven PCI Express x1 & x4 MegaCore function. [Download](#) the core today to start designing with the OpenCore® Plus evaluation features.

[Now Shipping: Cyclone II PCI Development Kits](#)

Altera's PCI Development Kit, Cyclone II Edition provides a flexible, low-cost FPGA development platform in a PCI short card form factor. Altera's new development platforms for PCI, Nios II, and DSP designs are now shipping. Place your orders today.

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In This Issue:

Technology & End Markets

Request the Audio Engineering Society Reference Design `Free`

The Audio Engineering Society (AES) and European Broadcast Union have developed a digital professional audio and broadcast standard for twisted pair conductors. The entire AES reference design can be designed into a Cyclone series device using only 910 logic elements.

Download an Interface to the Industry-Standard I2C Protocol `Free`

The I2C Controller Reference Design provides a simplified interface to the industry-standard I2C protocol. The I2C Controller is available in VHDL. The design was designed for the MC68307 microcontroller, and is optimized for the Stratix, MAX II, and Cyclone device families.

Events, Training & Net Seminars

Register Now: "Fit More in Stratix II than Virtex-4" Net Seminar `Free`

Join us July 20, at 11:00 AM Pacific Time to learn how to compare FPGA logic density using benchmark results and how to replicate the result with your own designs. Find out the architectural differences between Stratix II and Virtex-4 and how to fit more logic in Stratix II using Quartus II software.

View Net Seminar: "Reduce System Costs With PLDs" `Free`

Learn how Altera low-cost programmable logic device (PLD) solutions can reduce system costs and simplify design tasks while speeding time-to-market and extending product life at a surprisingly competitive price.

View Net Seminar: "Easily Implement PCI Express" `Free`

View this net seminar to find out how Altera's programmable, hardware-proven PCI Express solution can simplify your PCI Express design, and minimize design risk.

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Support & Literature

Prototype Your ASIC Design With The ASIC Prototyping CD `Free`

The ASIC Prototyping Resources CD from Altera contains all the tools and technical information to implement your ASIC designs in one or more FPGAs. It includes complete Quartus II design software with a 30-day compilation license plus handbooks, presentations and more.

Altera in the News

Altera Delivers 400 Millionth MAX Device to TCL--Thomson Corp

Altera has shipped 400 million MAX series CPLDs, surpassing $4B in cumulative sales. Altera has led the CPLD market for more than 15 years and is further strengthening its leadership position with its new MAX II family.

eeProduct Center Selects HardCopy II and MAX II as Ultimate Products

eeProduct Center announced that "HardCopy II devices are the industry's

most compelling structured ASICs." The publication also described MAX II products as "ideal for volume-driven, price-sensitive applications" and recognized the family as the "industry's 'lowest cost' CPLDs available now."

[Structured ASICs not Just for Small Chip Players,](#) EE Times

When structured ASICs made their debut, they were supposed to offer relief to smaller systems makers that were caught in between standard-cell ASICs and FPGAs. Now big chip companies are choosing structured ASICs as a way to get a chip out the door quickly or to deal with tight R&D budgets.

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