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Monthly Spotlight

[Stratix IV, the Industry's First 40-nm FPGAs, Now Shipping](#)

Stratix[®] IV EP4SGX230 FPGAs, the world's first 40-nm devices, are now shipping with up to 36 high-speed serial transceivers operating at up to 8.5 Gbps. Design with the lowest power high-density, high-performance FPGAs, and get a head start on your competition today.



FPGAs, CPLDs & ASICs

[HardCopy in Practice: Case Study With Altera's ASIC](#)

FPGA and Structured ASIC Journal: HardCopy[®] ASICs are pin- and package-compatible with Stratix series FPGAs, and provide a cost-effective design option for high-volume production. Learn more about the unique design flow and its practical applications in this article.

[White Paper: Control Analog Output—Digital CPLD With PWM \(PDF\)](#)

MAX[®] IIZ CPLDs, alone or with a few passive components, can use pulse-width modulation (PWM) to replace a digital-to-analog converter, allowing the devices to include LED intensity control, drive an audio speaker, and control servo position and motor speed.

[Meet Bandwidth, Power, and BER Needs With 40-nm Devices \(PDF\)](#)

Learn how the architecture of Stratix IV GX FPGAs with transceivers can result in high-bandwidth, low-power designs. This piece also compares jitter performance with a competitive device, and explains how the Stratix IV FPGA achieves superior bit error ratio (BER) performance.

[Gain Useful FPGA Design Resources From New Site](#)

Visit our new online board design guidelines resource center for information on board stack-up, routing guidelines, models, tools, and more to help you implement successful high-speed PCBs that integrate devices and other elements in a single location. Bookmark the page!

Software, Intellectual Property & Development Kits

[Webcast: Automate System Generation Using SOPC Builder](#)

Want to cut weeks off of your system development cycle? Watch this free webcast to learn how the SOPC Builder tool in Quartus[®] II software can shorten systems-on-a-chip development through automation. View today, apply what you've learned, and watch your productivity soar.

Technology & End Markets

[Gain Insights Into Fieldbus and Industrial Ethernet Solutions](#)

Industrial equipment manufacturers need to support a multitude of fieldbus and industrial Ethernet protocol standards. Learn how, with Altera partner solutions, manufacturers can support existing fieldbus protocols and industrial Ethernet technology with the same FPGA device.

[White Paper: Industrial Ethernet Capability on Single Board \(PDF\)](#)

Altera[®] FPGAs deliver multi-standard industrial Ethernet capability on a single configurable platform. Read this white paper to learn about the benefits of FPGA implementations, as well as FPGA development flow, tools, and technology for flexible industrial Ethernet solutions.

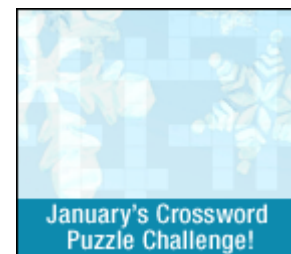


Featured
Reference Designs

[FPGA Design Security](#)

[WCDMA DUC and DDC](#)

[TFT LCD Controller](#)



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Events & Training

[Sharpen Your Stratix IV GX Design Skills With New Online Classes](#)

Altera is offering a variety of new, free online classes to enhance your skills in designing with Stratix IV GX FPGAs. Topics covered include: dynamic signal integrity management, Serial RapidIO®, PCI Express, and 10/100/1000 Mbit and 10 Gbit Ethernet. Review our classes, and sign up!

Support & Literature

[White Paper: FPGAs for Home-Appliance Motor Control \(PDF\)](#)

Consumers want home appliances to be smart, green, and, of course, always cheaper. This white paper shows how designers can take advantage of FPGAs to design next-generation products by integrating multiple functions, including motor control, on a single chip.

[From the Forum: Simulating the Parallel Flash Loader](#)

Altera Forum user aka_fpga_wizard asked how to simulate the parallel flash loader (PFL). Read the comments and suggestions from other Forum users that helped answer his question, then post your own advice to build your Forum reputation points today!

Altera In the News

[Military Productivity Factors in Large FPGA Designs](#)

ECN Asia: FPGAs are playing a larger role in defense electronics designs, as designers look to consolidate systems and decrease power consumption. This article examines productivity-related risk factors, and quantifies their impact on a design organization. Read it today!

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