



Spartan FPGAs Help Create **Movie-quality Video** on the PC

The Dazzle Digital Video Creator is designed around a low cost Spartan FPGA, and provides everything the PC user needs to record, edit, manage, and publish video.

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Dazzle Multimedia designs, manufactures, and markets innovative and affordable MPEG digital video products for business and personal computer users. They turned to the Xilinx Spartan FPGA family for their latest groundbreaking product. "We looked very carefully at several different options, and Xilinx simply made the most sense in terms of gates, memory, reliability and price," said Sajid Sohail, Founder, and CEO for Dazzle Multimedia. "The Spartan FPGA was the optimum device for our design and made the process very easy for us. The design required several memory blocks that we implemented as a FIFO. The embedded distributed RAM blocks within the Xilinx device were much more efficient than any other product on the market."

Derived from the industry standard Xilinx XC4000 architecture, the 5-volt Spartan FPGA family combines unparalleled performance with low prices to provide the highest price performance ratio available in the industry.

Fabricated on a leading edge silicon process, the Spartan family provides a full feature set including on-chip dual-port RAM, aggressive power management, densities ranging from 5,000 to 40,000 system gates, and small form factor packaging. The Spartan family is the first FPGA family that meets all the key requirements of ASIC designs

for high volume production, and delivers unmatched benefits over competing PLDs.

"This product has been so well accepted by consumers, we can't seem to build them fast enough," said Sohail. "It is the first product of its kind at an affordable price." The Digital Video Creator is currently shipping at a high volume rate and retails for \$249. Dazzle chose to continue to utilize the Spartan FPGA throughout production. "There is certainly the advantage of quick time to market combined with the flexibility to modify our design. We found a bug in our software within the first six months of shipment - instead of a crisis, this was an easy fix. We simply fixed the problem and sent out our new software to everyone. This was a great win for us and for the FPGA."

Dazzle used Verilog, Exemplar, and the Xilinx Foundation Series software to create their design. "The Foundation Series software provided a ready-to-use solution combined with a powerful interface," said Sohail. This fully integrated design environment allows the user to access a complete set of design entry tools, and automates the creation of schematic and HDL symbols for inclusion within a design, making it easy to design complex circuits in minutes.

Dazzle Multimedia expects to continue its strong presence in the retail channel by introducing an array of new SpartanXL-based products later this year. ❧