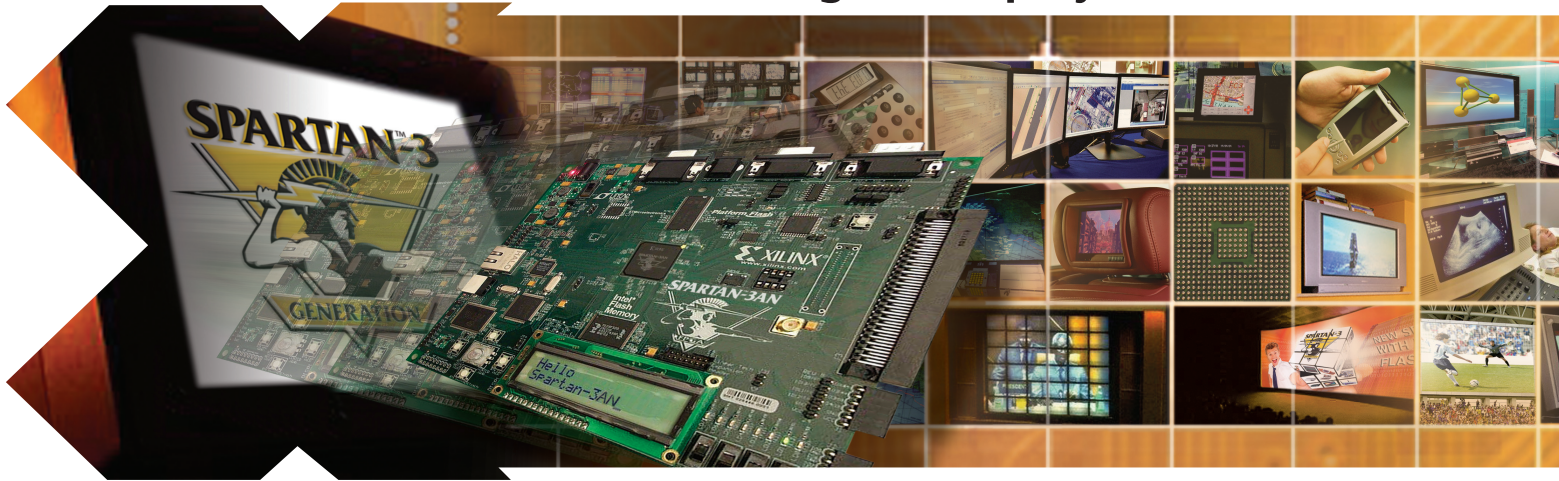


Consumer Digital Display Solutions



The System Design Dilemma

The constant drive to improve the image quality while reducing the total system cost of displays can be challenging as new standards, sizes and types of displays evolve. The high cost of developing ASICs has driven the reuse of ASICs across multiple generations and models.

Spartan™-3 Generation FPGAs address the needs of these dynamics with hassle-free and flexible solutions to enhance image quality and provide product differentiation.

The Xilinx Consumer Display Solutions

- Incorporate complex video image enhancement algorithms effortlessly
- Implement commonly used high-speed panel interfaces hassle free
- Utilize instant access to the widest support of I/O interfaces for changing standards and protocols
- Protect your design & IP with design level security technology
- Support green requirements with dual power management modes

Spartan-3 Generation Display Features

Video Image Enhancement Made Easy

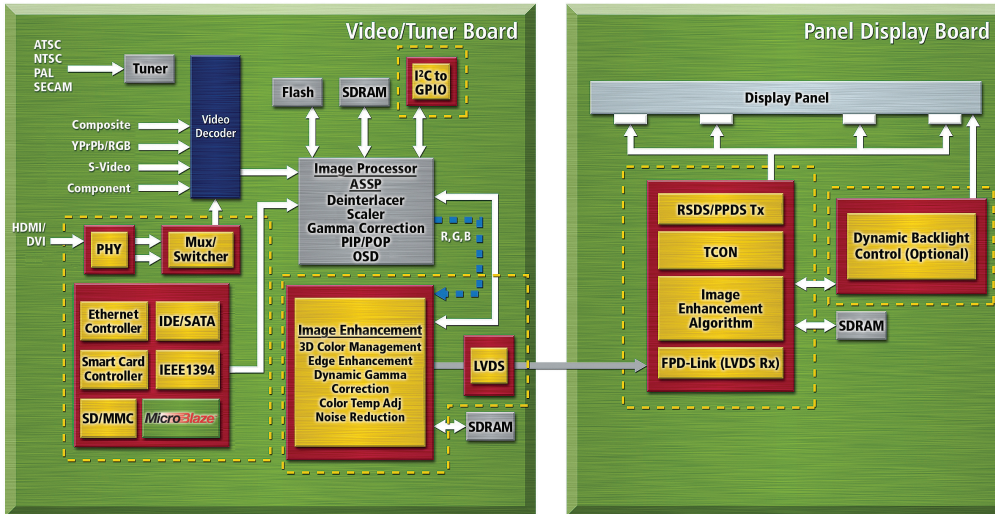
Spartan-3 Generation FPGAs provide pre- and post-image processing to enhance and extend your existing ASICs/ASSPs life. The Spartan-3 Generation can easily implement functions such as linear filtering, color space converters, and dynamic range compression to improve the image quality. The embedded multipliers, DSP blocks and block RAMs effortlessly implement the image processing algorithms to create product differentiation.

Hassle Free Panel Interfacing

Every generation of displays integrates a wide variety of panel sizes and types containing distinct interface, timing and image characteristics. Newer LCD panels incorporate even more complexity with features such as dynamic backlight control. The Spartan-3 Generation FPGAs support the latest interface I/O standards as well as flexible timing controllers to adapt to the different panel timing variations. In addition, image processing can easily be implemented to improve the image quality of each panel for truer colors, deeper blacks, and more detail in dark scenes as well as enhance features like backlight control.

Instant Access To Changing Standards and Protocols

Today's displays must support a variety of standards and protocols that range from video input such as DVI and HDMI to internal memory, ASSP/ASIC and panel interfaces. Spartan-3 Generation FPGAs can help you stay connected with existing interfaces like DDR, DDR2, LVDS and RSDS, as well as emerging TMDS and PPDS standards, all native to eliminate the need for expensive external components or PHYs.



Functionality supported by Xilinx

Protection With Built-in Design Level Security

Protection of valuable proprietary image enhancement algorithms and timing control systems from cloning, overbuilding and reverse engineering has become increasingly critical. Robust security that can be designed quickly to protect product improvements without impeding quick time-to-market. Xilinx offers many levels of security that range from hidden bitstreams to advanced data manipulation and Device DNA. The Spartan-3 Generation has the right security solution to help protect your design.

Go Green With The Spartan-3 Generation!

Increased global regulations are requiring more consumer products to reduce standby power consumption. Spartan-3 Generation has multiple power saving modes to help meet your power budget goals.

TAKE THE NEXT STEP

For more information on Xilinx's Digital Display Solutions, visit our website

<http://www.xilinx.com/esp/consumer.htm#displays> or call your local sales office or distributor.

To learn more about Spartan FPGAs, visit www.xilinx.com/spartan. Download your free

ISE WebPACK™ design tools today from www.xilinx.com/ise and begin designing immediately.

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