



X-ray image reconstruction using Orchid Technologies dual image capture and display electronics



“Orchid’s redesign of our old, now-obsolete image processor board threatened to kill an entire product line. Nice redesign, you both reduced our costs and saved the product line.”

Director Engineering

Re-engineered Dual Output X-ray Imaging

Obsolescence threatened the future of American Science and Engineering’s older generation X-Ray Imaging Security System. The now obsolete dual VGA imager used to simultaneously view transmission and backscatter X-ray images was no longer available at any price. Orchid Technologies was hired to evaluate the old design and provide an architecture and design implementation for a new, low-cost dual X-ray imaging board.

First Step, Review Product Requirements

Orchid begins by reviewing the old product requirements. During our initial review period, Orchid works to clearly define input, output and control requirements of the existing product design. Orchid takes great care in being certain that all aspects of the existing product design are uncovered, questioned, and evaluated. In this way Orchid ensures accurate redesign.

Second Step, Architectural Design

Orchid continues by setting electronics architectural direction. Orchid answers the question of preserving form, fit, and function, while employing updated and different methods to achieve the old product’s performance requirements. Orchid performs lab-based evaluation of critical circuit elements, thereby testing key elements of the new design approach.

Third Step, Implementation and Firmware Support

Orchid performs detailed electronics design implementation. Making use of programmable logic from Altera, Orchid reproduces the functionality of older semiconductor products which are obsolete today. Add to the hardware design Orchid Technologies’ software development and driver support and the whole package comes together.

Final Step, Low Volume Production

Orchid takes care of our customers through the entire product development cycle. Working with its third-party suppliers, Orchid provides low-volume production support, testing, product delivery and warranty services.

Orchid Technologies Delivers

The development of custom Electronics Technology solutions for our OEM clients is Orchid’s entire business. Obsolete product evaluation and redesign with rapid design cycles, demanding technical requirements, and unforgiving schedules set us apart. Call Orchid Technologies today, we’ll help you out of an electronics obsolescence jam too!

