



Control of large industrial processes requires exacting system design. Orchid's end point controller design meets the challenge.



"We sought SPEAr1310 design expertise. Working with Orchid was a pleasure. Right away, prototypes were up and running. Orchid's can-do attitude kept our spirits high throughout our fast-paced development."

*- Engineering Manager
Industrial Process Systems*

General Purpose PLC

Modern industrial controller design must meet exacting standards. Large process control cannot tolerate interruption, loss of service, or anomalous behavior. Redundant power systems, redundant memory systems, and redundant communication systems all serve to ensure continuity. Based on the powerful SPEAr1310 dual core Arm Cortex-A9 processor, Orchid's latest controller design meets the demanding requirements of today's world-class industrial needs.

Redundant Power Supply Design

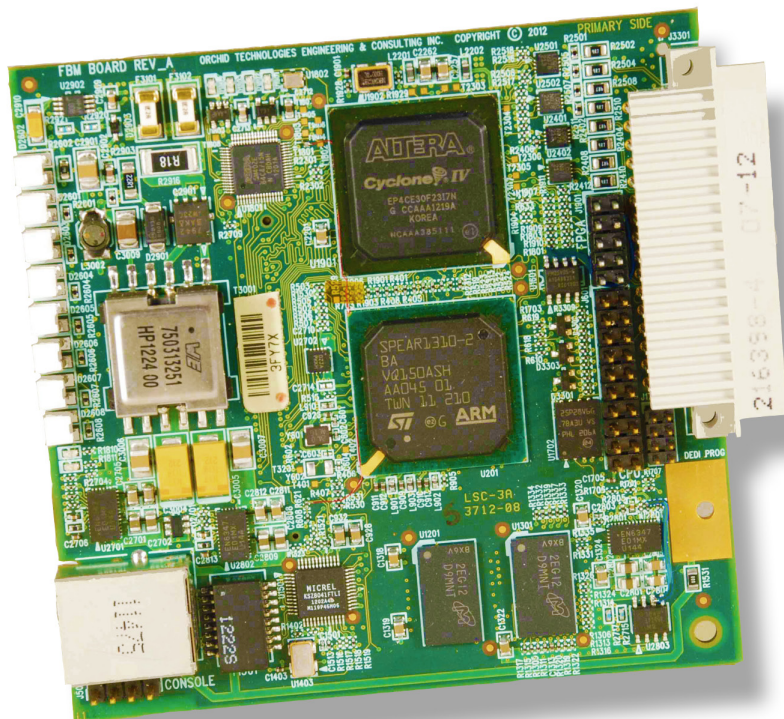
Dual 24 volt rails provide primary power. In the event of power rail interruption, analog monitoring circuitry constantly report power status and perform automatic rail switch-over. Efficient push-pull power design keeps peak voltages well below insulation break over requirements. SPEAr1310 operation with all peripherals operating requires less than six watts total operating power.

Altera Cyclone IV GX FPGA

IO expansion, external bus expansion and dual DMA HDLC controllers pack a physically small design with an extraordinary feature set. Altera FPGAs provide a rich and mutable peripheral set. Programmable at system startup, FPGA configuration changes are accomplished on the fly. System-wide functionality upgrades are easily accomplished with software service packs.

Orchid Technologies: SPEAr1310 CPU Design

The development of custom electronic products for our OEM clients is Orchid's entire business. The design of custom electronic products with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!



**ORCHID TECHNOLOGIES
ENGINEERING & CONSULTING, INC.**

Custom Engineering From Concept to Production

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