Design Note #95 **Altera Cyclone IV GX FPGA High Performance Industrial HDLC Communications**



Stay on course to win with Altera high density FPGA development from Orchid Technologies.



High Performance HDLC Communications

High performance HDLC messaging is the backbone of industrial controller communications. Compact, galvanic isolation of multiple differential HDLC channels allows control of multiple points on the factory floor. Robust connectivity to off-board services makes this communications subsystem unique in its class. Complete the picture with a compact, efficient, dual twenty four volt input, isolated push-pull power supply.

Altera Cyclone IV GX FPGA Altera Cyclone IV GX FPGA devices are the foundation for a world-class communications design. PCI Express ports together with multiple Ethernet and HDLC ports make for a compact, power efficient package. Working with Quartus and Qsys, Altera's FPGA fabric is configurable to support Ethernet ports, PCI Express Ports, custom HDLC engines, and other special function circuitry. Altera ModelSim ensures high design accuracy through simulation and early design iteration.

Altera Quartus II Development Tools

Quartus II development tools with QSYS system integration make the custom design of high performance Cyclone FPGA devices readily achievable. Custom hardware functionality can be implemented in the large FPGA fabric for a truly unique, flexible, performance-driven end product.

Enpirion Switchers for Low Power Operation

Low power, high efficiency operation with custom power management circuitry, and power integrity monitoring makes this industrial controller run in the harshest of environments. Altera's new line of Enpirion point of load power switching components provides compact, high efficiency power right where it's needed.

Orchid Technologies: Custom FPGA Design

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





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Custom Engineering From Concept to Production

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