Industrial Motion Control PWM Power Electronics

Design Note #28



Assembly line motion control requires speed, reliability and safety. Orchid's motion control designs deliver cost saving performance.

"Fast and Accurate. Your rapid design cycle techniques always come through. Orchid is reliable, responsive, realistic, and relentless – what a winning combination!"

VP Engineering

Industrial Motion Control

High-power industrial motion control is a demanding art requiring a mix of power electronics techniques coupled with modern digital signal processing. Orchid's two board industrial motion control set provides multiple high power pulse width modulation drivers (PWM), precision analog servo circuitry, and digital signal processing.

Digital Signal Processing - Pulse Width Modulation

High speed digital signal processing algorithms continuously provide eight streams of pulse width modulation data to the motor control power electronics. Low-voltage, high-current MOSFET and TRENCHFET devices drive power electronics in an H-bridge configuration. The two board set provides isolation between the power electronics on the lower board and the control systems on the upper board.

High Precision 24-Bit Analog Electronics

Twenty Four Bit high-precision analog conversion electronics together with Pulse Width Modulation control systems form the control plane of this multi-channel motion control system. Data conversion rates of 40KHz together with multi-channel PWM outputs enable high performance.

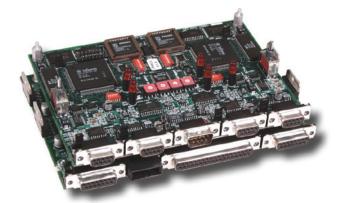
Rapid Design Cycle

From concept to running prototype units in less than six weeks! Working with our client's sketches and verbal requirements, Orchid delivered fast paced, accurate product development know-how. Orchid Technologies really delivers!

Specification Generation
Component Engineering
Electronic Simulation
Component Procurement
Circuit Board Mechanical Design
Lattice ASIC Development
Circuit Board Layout
Circuit Board Fabrication
Circuit Board Assembly
Frototype Debug
Firmware Development
Detailed Design Documentation
Design for Manufacturability

Orchid Technologies Delivers

The development of Electronics Technology solutions for our OEM clients is Orchid's entire business. Rapid design cycles, demanding technical requirements, and unforgiving schedules set us apart. Call Orchid Technologies today, we'll put a custom electronic product design in your hand tomorrow.





ORCHID TECHNOLOGIES
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