High Reliability, Ruggedized, Light Weight Avionics Power Supply

Design Note #56



Avionics Power Supplies require high MTBF and low MTTR in a compact, light weight design. Custom Power Supplies from Orchid Technologies keep you flying.



"Orchid's engineers designed a novel control daughter board to make our power supply truly compact. That's creative thinking and that's why we selected Orchid as our design partners."

- Avionic Power Systems VP

High Reliability, Dual Output Power Supply

Orchid Technologies was selected to develop a High Reliability, Ruggedized Dual Output Power Supply for use in demanding avionics applications. Optimization of Power Supply size and weight were critical to the design's success. Working closely with our component vendors, Orchid crafted a proven 150,000 Hour MTBF solution.

Hot Swappable, Low MTTR, Light Weight

Maintainability, rapid field replacement, and light weight requirements added to the design challenge. A unique power-edge finger mating approach made hot swap and MTTR easy. Component weight is rarely a consideration in electronics design, however in this design each part had its own weight budget—including the circuit board.

Microprocessor Supervision

High output voltage stability with low current noise is essential over the entire extended operating range. Brown-out detection, over and under voltage protection, and thermal protection are performed with an on-board power supply microcontroller. Advanced error detection and power supply status monitoring achieve extraordinary output performance.

Orchid Technologies: Powering Avionics

The development of custom electronics products for our OEM clients is Orchid's entire business. High performance, high reliability custom avionics power supply design with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!





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