



Aircraft Pod-Mounted Power Supply

Upgrade to VITA 62 compliant system required more power



Small Size,
Low Profile



Reduced Time
to Market



High
Temp

The Customer's Challenge

An upgrade to a pod-mounted instrument system required more power on the 12V rail. The power supply that was currently used was a standard VITA 62-compliant 3U converter powered from the aircraft's 270V DC bus. The current vendor was unable to increase power beyond the existing 500W specification.



The Solution

Vicor's VITA 62-compliant 3U solution is based on DCM DC-DC converter technology, which provides ultra-high density (up to 1,240W/in³) in a low profile package. The solution offered was capable of providing up to 600W within the same 3U package. Employing high efficiency, two-sided conduction-cooled modules, this VITA 62 solution met the 85°C operational temperature (at the card edge) required in this application.

[Find more information about VITA 62 »](#)



The Results

Development time for the system upgrade was running out, however, as these supplies are based on standard DCM modules, Vicor was able to quickly modify the design to provide more power on the 12V rail. This enabled a fast turn-around to meet the customer's tight schedule for system demonstration.

The modular approach to designing VITA 62-compliant supplies allows quick changes to the supply to be made, often without incurring custom design charges.

Product Family Key Specifications

VITA 62 Compliant 3U Supply

Input Voltage	220 – 320V _{DC}
Outputs	12V @ 40A, 5V @ 30A, 3V3 @ 20A, 3V3 @ 6A, 12V @ 1A, -12V @ 1A
Efficiency	87.5% (100% load)
Operating Temperature	85°C (at card edge) max.
Dimensions	3.94 x 6.63 x 0.95in