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VPT Introduces Split Output DC-DC Converter To Meet Changing Military Market Needs

VPT's new DVSB provides 3.3V and 5V output in a single module, saving board space and expense while improving system reliability for military applications.

About VPT

VPT, Inc. leads the industry in providing innovative DC-DC converters, EMI filters, and custom engineering services for military, aerospace, and space applications. Working in partnership with Delta Electronics, the world's largest commercial power supply manufacturer, VPT delivers its patented power solutions in a fast timeframe, with the highest certified quality, at a comfortable cost. Every day, organizations like NASA, Lockheed Martin, Boeing, Raytheon, the United States Air Force, and many more depend on quality solutions from VPT to power critical systems. Whether on the ground, in the air, or beyond, VPT provides the power driving critical missions today.

BLACKSBURG, VA, January 8, 2003 - VPT Inc., the innovative leader in providing power conversion products for military, aerospace, space and other high reliability markets, introduced today a new DC-DC converter with split output voltages of 3.3V and 5V. The new DVSB Series of DC-DC power converter satisfies today's military system requirements of multiple low voltage output voltages, high reliability, wide temperature operation, low size and weight requirements, and lower development costs.

Designed for airborne military uses including fighter jets, helicopters, and weapons systems, the new DVSB Series of DC-DC converters is a true military-grade, "commercial-off-the-shelf" (COTS) module and is available from stock immediately.

“While newer military systems are using lower voltages such as 3.3 volts and lower, there are several systems that still require a 5 volt output as well,” explained Steve Butler, Vice President, Engineering, of VPT. “Typically, this would be accomplished by designing an expensive custom module or using multiple modules for the task. By providing a standard module that meets these requirements off-the-shelf, we now enable system design engineers to save time and power their systems with a single unit instead of two or more. This reduces the number of interconnects, reduces system assembly costs, saves board space and weight, and because there are less components in a system, improves system reliability.”

DVSB Satisfies Multiple Low Voltage Needs in a Single Module

A true military grade thick-film hybrid DC-DC power converter, the DVSB Series eliminates the need for custom converters or multiple converters to satisfy multiple output voltage needs in a military power system. With outputs of 3.3V and 5V, the DVSB Series can power systems from a single module, saving board space, weight, and development cost, and enhancing system reliability.

Specific technical features include:

- Very low output noise: 40 mV typical
- Wide input voltage range: 15 to 50 Volts per MIL-STD-704
- Up to 12.5 watts output power
- Minimal cross regulation resulting from VPT’s dual control loop design topology
- Fault tolerant magnetic feedback circuit
- Extreme reliability: no use of optoisolators
- Undervoltage lockout resulting in minimal overshoot on start up
- Light weight: 24g
- High input transient voltage: 80 Volts for 1 sec per MIL-STD-704A
- Precision projection welded hermetic package
- Available custom versions
- Manufactured in a MIL-PRF-38534 and ISO9001 Facility
- Satisfaction of MIL-STD-461C and MIL-STD-461D EMC requirements when used with a VPT’s DVMH28 EMI filter
- Available flanged and non-flanged versions
- MIL-PRF-38534 element evaluated components

VPT offers additional levels of environmental screening options to ensure reliable performance in demanding airborne military applications.

Price and Availability

Starting at just \$397 in quantities of 100, the DVSB Series is also the most affordably priced module in its price and power range. DVSB modules are usually available immediately from stock. For further product information, visit www.kayindia.com or mail us at sales@kayindia.com