



Power Your
Critical Mission Today

News Release

FOR IMMEDIATE RELEASE

Contact: Michelle Manson
MMC Marketing & PR
425.353.3010
press@vpt-inc.com

VPT Introduces New Power System for Low Voltage Applications

*New Power System Is the Most Efficient Low Voltage System Available
for Military, Avionics, and Space Programs*

BLACKSBURG, VA, October 3, 2005 - VPT Inc., the innovative leader in providing power handling products, created an industry first by introducing a completely new power system today. VPT's new High Efficiency, Reliability Optimized (HERO) Power System is the most efficient DC-DC distributed standard power solution available to satisfy the unique requirements of military, avionics, and space applications. The new HERO power system combines a new high efficiency, high power DC-DC converter with a set of new, small-size point-of-load DC-DC converters in a complete system to power low-voltage devices. As a result, this new power system delivers more power, with military-grade reliability, while requiring less space and cost than any high reliability solution previously offered for these demanding applications.

"For years, customers have spent considerable time and expense in researching, designing, and procuring multiple components from multiple manufacturers to create a single low voltage DC-DC power system," explained Michael Bosmann, Senior Vice President of Sales and Marketing for VPT. "For anyone with a critical reliability application, such as an aircraft, these blended systems often require expensive custom modifications and extensive testing cycles to satisfy reliability standards. Today we've introduced a compact solution to this complex problem – the HERO Power System. Our solution is easily configurable, off-the-shelf, and built specifically to meet the extensive reliability and performance needs of our military, avionics, and space customers."

Previous Systems: Inefficient and Not Optimized for Critical Reliability Applications

Before today, customers typically used multiple DC-DC converters or a combination of converters and linear regulators to deliver low voltages needed to power digital power boards. However these components in combination can be extremely inefficient and result in significant power loss during the conversion process. Additionally, off-the-shelf linear regulators are usually not built to the extremes required by military, avionics, and space applications. Systems using linear regulators in high reliability applications can experience reduced system reliability as a result of their use when compared to the Hero Power System.

****MORE****

VPT addresses these concerns in its new HERO Power System. This system includes a set of new products that enable engineers to implement a DC-DC distributed power system with significantly more efficient power delivery at the points of load.

A More Efficient Solution

The HERO Power System is the first complete DC-DC power system in which all modules are available to military and avionics specifications including temperature range, hermeticity, and screening. The HERO Power System consists of two new module offerings from VPT:

- ▶ DVHE DC-DC power converter. This converter provides up to 50 watts of power and operates 20% more efficiently than its predecessors.
- ▶ DVPL point-of-load converter. This is a non-isolated, synchronous, buck regulated converter that steps down the voltage at the point of end use. Multiple DVPLs can be powered from a single DVHE.

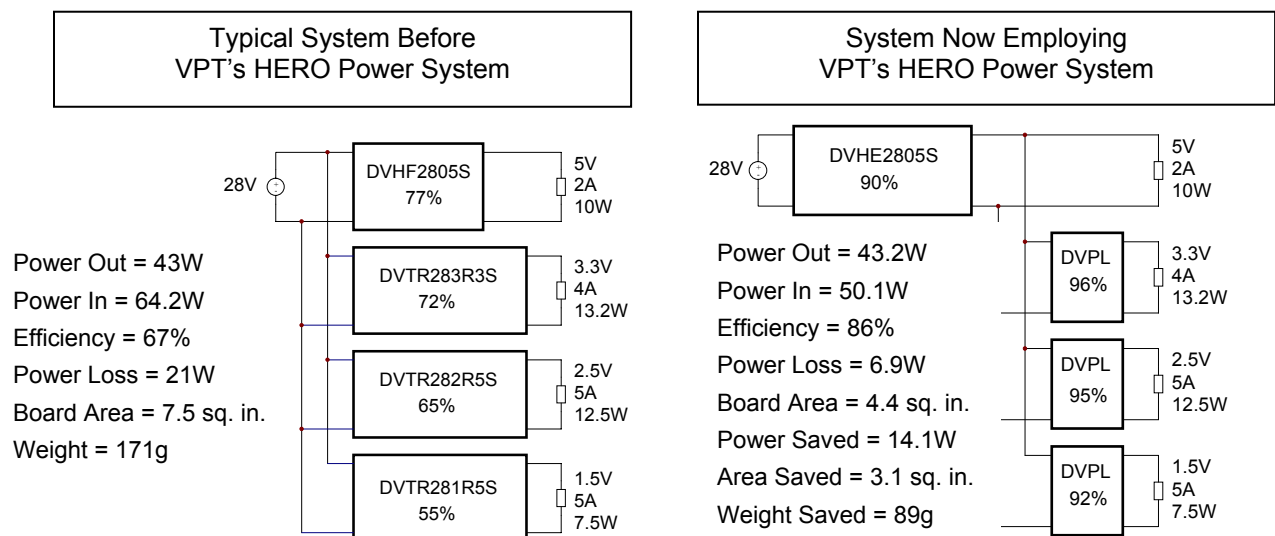
When these modules are used together in the HERO Power System, they deliver more power, more reliable operation, and require less board space and cost than any other low voltage DC-DC power solution currently available for military, avionics, and space use.

More Power. The DVHE delivers 50W in a standard hermetic case at more than 90% efficiency. This is 66% more current than previous generations offered in the existing standard case size. Engineers can use a single DVHE to power multiple low voltage devices instead of deploying multiple DC-DC converters.

More Reliable Operation. All modules are available to MIL-PRF-38534 standards for use in critical reliability applications. The DVHE delivery of high power results in the need for fewer modules and fewer interconnects, which inherently increases system reliability.

Less Space and Cost Required. Fewer modules mean fewer square inches on a board and less cost.

All modules in the HERO Power System operate within the military temperature range of -55°C to +125 °C with no derating of either input voltage or output power. The HERO Power System's high power, reliable performance, and smaller space enable engineers to produce a more efficient power design overall.



****MORE****

Modules Built for Critical Application Use

Both the HERO Power System's DVHE and DVPL DC-DC converter modules are optimized for reliability in demanding applications. The DVHE features include:

- ▶ Up to 50W output (10A)
- ▶ Size 2.110" x 1.125" x 0.417" and light weight (52g max)
- ▶ Up to 90 % efficient
- ▶ Synchronous rectifiers
- ▶ Fast transient response as required for many processors
- ▶ MIL-STD-704 Input of 16 – 40V input w/ 50V transient
- ▶ Full military temperature range -55°C to +125 °C
- ▶ 260kHz switching frequency
- ▶ Magnetic feedback – no optocouplers
- ▶ Undervoltage lockout protection
- ▶ Remote sense
- ▶ Output voltage trim range +/-10%
- ▶ Very low output noise
- ▶ Industry standard pinout
- ▶ Fully hermetic, metal packaging

The new DVPL point-of-load converter is the world's first hermetically-sealed point-of-load converter available to MIL-PRF-38534 specifications. Features include:

- ▶ Up to 5A/16W power output
- ▶ 95% efficiency typical
- ▶ 3.0V to 5.5V input range
- ▶ Adjustable output voltage
- ▶ Output power sequencing and voltage tracking
- ▶ 1.0" x 0.8" x 0.27" size
- ▶ Full military temperature range -55°C to +125 °C
- ▶ Very low output noise
- ▶ Fully hermetic, metal packaging

Further Information

Interested engineers can visit the VPT Web site at www.vpt-inc.com to view specifications and request a technical article on the new system.

VPT's new HERO Power System is immediately available and can be ordered directly from VPT or through one of its sales distributors. The DVHE DC-DC converter is \$595.00 per unit and the DVPL point-of-load converter is \$161.00 per unit in OEM quantities.

For further information, contact VPT at (425) 353-3010.

****MORE****

About VPT

VPT, Inc. leads the industry in providing innovative DC-DC converters, EMI filters, and custom engineering services for avionics, military, 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.

#