



# High Temperature Hybrid Power Solutions

HTD Series Hybrid DC-DC Converters for Extreme Environments

## Features:

- ▶ -55°C to +185°C operation guaranteed
- ▶ 1.5 Watts output power
- ▶ Wide input voltage ranges:
  - 6 to 20V
  - 14 to 40V
- ▶ Dual output voltages:
  - +/-5V
  - +/-12V
- ▶ Soft start
- ▶ Short circuit protection
- ▶ Low output noise
- ▶ Custom versions available

## Packaging:

- ▶ Low profile 0.27" height
- ▶ Hermetic metal package
- ▶ Thick film ceramic substrate
- ▶ Chip and wire hybrid construction

## Manufacturing:

- ▶ ISO 9001:2008
- ▶ MIL-PRF-38534 Class H and Class K certified facility
- ▶ Class 100K microelectronics assembly cleanroom

### [ 155 °C ISOLATED DC-DC CONVERTERS ]

Temperature	Power Level (W)	Model Series	Input (VDC)	Outputs (VDC)
155 °C	1.5	HTD1R5B-1200D	6-20	+/-5, +/-12

### [ 185 °C NON-ISOLATED DC-DC CONVERTERS ]

Temperature	Power Level (W)	Model Series	Input (VDC)	Outputs (VDC)
185 °C	1.5	HTD1R5N-1200D	6-20	+/-5, +/-12
	1.5	HTD1R5N-2800D	14-40	+/-5, +/-12
	5*	HTD5N-2800D	14-40	+/-5, +/-12

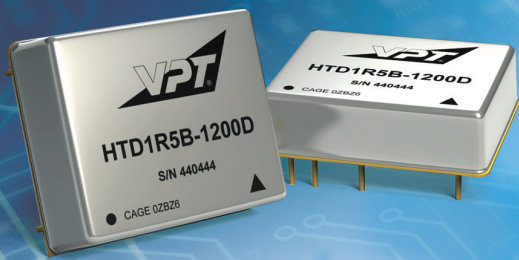
\*Available Q4 2016

For complete data, see datasheets at [www.vptpower.com](http://www.vptpower.com)



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## The HTD Series of DC-DC Converters Brings VPT's Hybrid Microelectronics Technology to High Temperature Applications

Building on a proven hybrid converter design heritage, the HTD Series of high temperature DC-DC converters is specifically designed for harsh and extreme temperature environments including downhole oil and gas, MWD/LWD and wireline logging tools, aircraft engine electronics and other industrial applications.

The HTD Series utilizes thick film hybrid microcircuit technology that provides superior reliability in high temperature applications. Bare semiconductor die are integrated with passive components using thick film conductors on a ceramic substrate. Component attach and die bonding are optimized for high temperature life, and the hermetic metal package protects internal components for long-term reliability.

High temperature performance is guaranteed through qualification, component testing and analysis.

The HTD Series has been characterized over the full operating temperature range from -55°C to +185°C, including electrical performance, operating life, temperature cycling, mechanical shock and vibration.

VPT, Inc. (VPT®) is a global leader in providing power conversion solutions for use in avionics, military, space and industrial applications. For over 20 years, VPT's award-winning DC-DC converters, EMI filters, accessory products and engineering services have powered systems for world-class organizations and programs. Long standing relationships with partner organizations including Virginia Tech's Center for Power Electronics Systems, Delta Electronics and parent company HEICO Corporation ensure that VPT leverages its corporate resources to deliver innovative power conversion products with efficient, cost-effective technology.

### Proven Power Hybrid Heritage – A partial list of the global programs supported by VPT:

- Abrams Tank
- Bradley Fighting Vehicle
- Crusader Attack Vehicle
- Gen Main Battle Tank
- Stryker Vehicle
- Airbus A350/A380/A400M
- Apache Helicopter
- Boeing 737/757/777/787
- C130J
- F-15/16/18/22/35
- GPS III
- Mars Orbiter Mission
- Mercury Messenger
- Pluto New Horizons
- Venus Express

**VPT powers aerospace, avionics, military and other critical programs globally. For a comprehensive programs list, please see [www.vptpower.com](http://www.vptpower.com).**

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